

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

{ STAMPED.....SIXPENCE.  
{ UNSTAMPED..FIVEPENCE.

[DUPES, BEGE, and SAILLES refer to the Editor of the Mining Journal.]



## Original Correspondence.

## EXPLOSION AT TYLDESLEY COLLIERY.

SIR,—This awful event will embrace much investigation and mysterious enquiry, especially as the pit was so recently established, and the pillar work so lately commenced.

The prevailing system in Lancashire is understood to be the driving of drifts, or headings, straight through the coal field to the boundary, and then lay out for general working in bords and pillars, the latter being at an early period taken away. Now this subject has lately occupied the Institution of Mining Engineers of Newcastle, the discussions upon which are not yet concluded, which have originated from the too famous case of Lund Hill. The established principle of safety as applicable to collieries such as Tyldesley is described, may be summed up as follows:—

1.—The temporary ventilating openings of these long drifts ought to be substantially closed by brick or stone stoppings, and towed, so as to withstand explosions.

2.—An ample amount of general ventilation ought to exist as a basis of detailed subdivisions; for, according to approved practice, an extensive colliery ought not to depend upon one undivided current, which would necessitate numerous doors, even for the working of the whole coal.

3.—Before commencing the working of pillars the ventilation should be so arranged as that the air, after leaving the goaf (which is a virtual breaking down of that part of the system), should not be allowed to pass through amongst the workmen. To give effect to these arrangements, skill and good practice are necessary and indispensable.

4.—Then, with respect to the safety-lamps, unless good arrangements prevail as to their cleanliness, their screws and locks being in good repair, and their construction in all respects proper, together with the constant supervision of properly appointed persons, they cease to be safety-lamps.

5.—The possibility of opening the locks with a nail, or other rough material, in the absence of the proper key, owing to the screws, &c., being imperfect.

Therefore, the investigation of such a subject as this should point, not so much to the discovery of the person who fired the gas, as to the actual arrangements which prevailed at the colliery, for those at Lund Hill were utterly condemned upon the investigation.

In the present state of the enquiry it is impossible to say what were the real circumstances of the case; but it too frequently happens that, after a catastrophe of this sort, the public ear is filled with allegations of the dangerous state of the mine antecedent to the explosion, and yet the very colliers whose lives were at stake never raised their voices to awaken enquiry.

This is a very incredible fact, which is but too often exemplified—that in many cases of prominent danger, both from explosion, bursting in of water, falls of roof, bad ropes, imperfect gearing, &c., which were well understood by the intelligent portion of the workmen, yet they had not the moral courage to raise their voices and demand an investigation.

Previous to the appointment of Inspectors, this was forcibly laid before Parliament and the public; but, since the appointments have been made, I have reason to believe that very few well-grounded appeals have been submitted, either as to the system of working or the incompetence or neglect of the mining managers; for, without the active agency of the workmen in these respects, the casual visitations of the Inspectors cannot be expected to meet many of these cases. Therefore, it will be well if the workmen would act more upon their own practical knowledge in anticipating these dreadful events, and raise their voices in the proper quarter in time.

A PRACTICAL COLLIER.

## ON MINING COLLEGES AND SCHOOLS.

## AND THE QUALIFICATIONS OF COLLIERY VIEWERS AND MANAGERS.—NO. II.

SIR,—We have seen that the managers and viewers of collieries are composed of two classes—firstly, of those men who have “served their time,” as it is termed, in homely phrase; and, secondly, of men who have at an early age occupied subordinate situations, and have gradually worked their way upwards to that of viewers, &c.

Firstly, we shall speak of the first and highest class. The great majority of men comprising this class have never visited a mine previously to commencing their term of apprenticeship. They have generally received what is called a liberal education, but, except in some rare instances, they have certainly not received an education at all suitable to prepare them for the particular business of a mining engineer. They have received no special instruction in those sciences which are peculiarly necessary and useful in mining pursuits, such as mechanics, geology, natural philosophy, &c. So far as their preparatory education has gone, they might with equal propriety be sent to acquire any other business, such as a merchant, shipbroker, or what not. They can give a certain sum as premium, and when they have passed through their terms of probation they can calculate with certainty on being employed as viewers, &c. It is of little consequence, in the first instance, what their acquirements are—whether good, bad, or indifferent; employment they are pretty sure to get. Now, the first great defect in the present system appears to be the want of a suitable preparatory education; a general education for this particular profession is not sufficient; some special instruction in those sciences we have mentioned is highly necessary. It is quite clear that if the foundation be not laid the building itself cannot be successfully reared. True, many eminent men have been produced, but they are exceptions to the general rule. The great mass, we hesitate not to assert, are extremely defective, and those eminent men who have achieved great success will be found to have received a superior education, and to have been possessed of unusual energy and perseverance.

It appears, therefore, that to effect this desirable object a preliminary examination ought to be passed by candidates for their professions previous to their commencing their apprenticeship. A Mining College would afford the necessary instruction to enable them to pass this examination, which might take place at such college, or colleges, or at the Government School of Mines; or it might be conducted by some other official, or officer appointed by the Government. No doubt the necessary instruction can be had at colleges already in existence, but it would certainly be got at a much cheaper rate, and in a form which would be more easily made available at an institution specially designed for the purpose.

We will now suppose that the apprentice has entered on his studies at the mine, and it may be useful to enquire in what manner he prosecutes them, and particularly with respect to his instruction and experience in underground works. It is obvious that if he is to acquire a thorough practical knowledge of underground workings he must be a frequent visitor there, and a persevering traveller through all the labyrinths of the mine; and the more experienced and intelligent his companions are the better will be his chances of acquiring a competent knowledge of this part of his profession. He will, therefore, naturally expect to receive much instruction from his master in the mine, but here he will generally be disappointed. The system of pluralities prevents the head viewer from going underground often. The growth of this system is a most surprising phenomenon, and is considered an evil of the greatest magnitude; it is also connected with our present subject in many respects. The head viewer has generally so many collieries under his charge that he must be pretty active to be able to visit them all at the surface occasionally, he, therefore, only visits the underground workings on extraordinary occasions. The apprentice is generally consigned to the care of the overman or under-overman to teach him the mysteries of sheaths, courses, goafs, &c., &c. Now, however proficient those men may be in the practical details of coal mining, it will scarcely be contended that they are qualified to give sufficient instruction on the spot to young men in all that belongs to the science of ventilation, &c., much less give them useful hints which might lead them in after years to effect improvements in the mines, and as there is no wholesome dread before the pupil of being plucked, no danger of being refused a diploma, it need not excite wonder that many of them prove careless and indolent.

It will not, therefore, excite surprise that men who get their education in this manner should not be able to find their way round the workings of the colliery they pretend to manage, or that they should occasionally lay their hand on a district of the map and coolly state that it is whole coal, although the mineral has actually been worked out. We are not introducing hypothetical cases here, but merely giving actual instances that have occurred with respect to the general teaching the pupil receives from his master, theoretical and practical. In some instances it will be exceedingly good, and, taking the opposite extreme in those cases, it is positively bad. But if it be admitted that a necessity exists for some examination to be passed before the pupil commences his apprenticeship, it will also be admitted that a much greater necessity exists for a rigid examination to be passed at the close of it. Surely the importance of the profession demands something of this kind. We certainly have a strong conviction that certificates

would be of immense service: they might be divided into, say, three classes—a first-class certificate, to qualify as a mining engineer; second-class, as a colliery viewer; and third, to qualify as an underviewer or resident viewer. If young men had a system of this kind before them it would certainly act as a powerful stimulus, and induce them to exert themselves in order to attain the highest rank in their profession; and presuming that the market should be open as at present, still coalmasters would naturally prefer men of the best qualification, and this system would give some criterion as to where they were to be found.

## PRACTICAL MINING—SYPHONS.

SIR,—Mr. W. Vivian does not answer the enquiries of “A. B.” on this subject. “A. B.” wishes to know how it is that his syphon should work continuously for several hours and then fail, all the joints being air tight? I will endeavour not only to explain the cause, but to suggest a remedy. If the pipe from its highest elevation falls, or inclines to each end throughout its entire length, then the syphon, being air-tight, and having worked one hour, would continue to work until the water was exhausted; but if in any part of the syphon, either the suction or delivery, the pipe is made to rise and fall thus:—

The syphon will act for a time, but, sooner or later, must fail. The reason is obvious. All water contains air or gas, and in some of these mines in very great quantities; thus air or gas naturally tends to rise, and the consequence is that it lodges in these elevations of the pipe, gradually accumulating until the continuity of the stream is broken. “A. B.” has 120 ft. in length and 3 ft. fall; the probability is that in this part the pipe does not fall the whole distance, but has at least one rise in accommodating itself to the surface ground. The remedy where there is only one rise (better have one larger rise than two or three small ones) would be to have an air vessel and air-pump, the air vessel provided with a glass gauge; fix the air vessel above the highest part of the rise, exhaust the air until not only the pipes but the air vessel become filled with water, and start the syphon. The air will naturally rise into the air vessel, and the gauge will give timely notice when the air requires again exhausting, which will be before the air vessel is quite empty of water. For a syphon of 1 in. bore, an air vessel (any old pipe) of 3 ft. or 4 ft. capacity will be found quite sufficient in ordinary cases, and will only require the exhausting of the air night and morning. It is, of course, a work of supererogation in any case to make the fall end of the syphon above 34 feet vertical.—Dec. 13.

WIGAN.

## THE PROPOSED STEAM TELEGRAPH SYSTEM.

SIR,—In your last Journal you announced the formation of a company for developing an invention for applying steam to the transmission of electric signals, and made the marvellous assertion that by the aid of that invention 2000 words could be forwarded in the time at present necessary for the transmission of 20 words. Now, in the *Times* of this day I observe a notice referring to the celerity and accuracy of the information telegraphed by the Electric and International Company. The intelligence forwarded in this instance was their report of the proceedings at Manchester on Friday.

The first portion of the report was received at the Telegraph Office, at Manchester, at 10.55 Friday night, and the last at 1.25 Saturday morning. It may be added that the whole report, occupying nearly six columns, was in type at a quarter to 3 o'clock on Saturday morning, every word having been transmitted through the wire a distance of nearly 300 miles. Some of our readers may be surprised to hear that this report was transmitted entirely by young girls. An average speed of 29 words per minute was obtained, principally on the printing instruments. The highest speed on the needles was 39 words per minute. Four printing instruments and one needle were engaged, with one receiving clerk each, and two writers taking alternate sheets.

From this it is apparent that 30 words per minute would be easily attainable, and assuming the words to average but from three to four letters each, we should have 100 letters; and again, as each letter would, on the average, require two distinct currents, we should, by the present arrangement, be enabled to send 200 currents per minute; this is the lowest calculation. In sending the *Times* report, above referred to, from 300 to 400 currents per minute must have been sent. However, taking the 200 currents per minute, and calculating upon your data, the question will stand thus—If 200 currents can be transmitted in one minute by the present arrangement, and as by the use of steam (2000 words can be sent in the time now requisite to send 20) a speed 100 times greater than that now attained can be ensured, how many currents per minute can be forwarded when steam is so used? The answer is doubtless 20,000; hence, by the use of Mr. Baggs's invention, a speed of 300 words per minute.

But, having proceeded thus far, we must take another fact into consideration. It is admitted that in short circuits, and with the present mode of transmitting signals there is no appreciable delay requisite after one signal has been forwarded before the wire is in a fit state to receive another; but it has been demonstrated by the Atlantic cable that a certain time is really necessary, and as, for Mr. Baggs's invention to be of utility, it is necessary that the return current should be received in one three hundred and thirty third part of a second, I would ask some of your correspondents whether it is possible to obtain such return current so quickly? T. H. City, Dec. 12.

## THE GOLD QUESTION.

SIR,—The prospect of a revival of the gold question brings with it a hope that some new light will now indeed be thrown upon the subject, and we regard with interest and with some anxiety the efforts of any individuals who may be enterprising enough to enter upon a field that has been the scene of so much disappointment and failure. From the earliest ages the science of gold making, or alchemy, has been enveloped not only in mystery, but even in superstition; and I think one great reason of the failure of many gold schemes has been the secrecy that has enveloped so much of the *modus operandi*, which has prevented scientific men from assisting, by their advice and suggestions, in carrying out any trials that have been made from time to time; and if everything had been more open and straightforward, I think the public would have been more satisfied that science and genius had contributed to their utmost to assist the undertaking, although, perhaps, the parties most interested would not have been able to secure so large and immediate an advantage in the event of the method becoming public.

It seems strange that, in a progressive country like this, the research for the precious metals should be discontinued because they cannot be economically produced; the existence seems to be undoubted; the extent is not so clearly defined, but it is unquestionably very large.

As to the economy of producing metals, no country has taken such rapid strides as Great Britain. Only a century ago copper ores were actually thrown away in Cornwall as worse than worthless, but new methods have been discovered in dressing and reducing copper ores so as to make even 2 per cent. pay for extraction.

*Auri sacra fames.* It is really the fact that when adventurers embark in gold schemes they are led away with a sort of infatuation, and think because there is gold in such and such a place they have only to excavate the part of country and submit it to the reducing process just as fast as they can mine it. I think this is the reason that the expenses of many gold seekers have exceeded their returns. Now, it is well known to all geologists that there are certain stratifications which cannot contain gold, and the precious metal can only be found in the old or primary formations—such as the granite, the killas, &c. Now, it is not necessary because we have killas that we should have gold, any more than that we should find copper, although the elements to form the gold or the copper may exist in the killas; yet, unless some influence occurs to cause the particles of gold or copper to be formed in the matrix, the gold or copper will still remain in their elementary state.

Now, we generally find copper in lodes traversing the stratification either east and west or north and south, and generally a junction or intersection of these lodes tend to produce a body of ore. I say generally, because sometimes the junctions prove barren, and copper is also found in deposits apart from lodes. Now, in the search for gold it is just as necessary to study the phenomena attending its production; and, although I have found gold in appreciable quantities diffused throughout the clay-slate in certain districts, yet, to be remunerative there must be other attendant circumstances; we must either have a quartz or some other matrix containing a good deal of brown or red oxide of iron, micaceous iron, or iron pyrites. I believe that gold will never be found in paying quantities in an auriferous matrix without the presence of iron in some form. A large proportion of the gold in Australia is found in a ferruginous clay; the jacotings and black sand of

the Brazils contain a large quantity of iron; and the sand brought from the Gold Coast contains sometimes a considerable percentage of micaceous iron, which is so difficult to detect with the eye in gold dust. Now, what is the reason that gold should be found so often associated with iron? It is a very simple one. If an analytical chemist has sent him a sample of auriferous material for analysis, after dissolving the gold it is supposed to contain in aqua regia and washing the solution, he precipitates the gold with sulphate of iron, which throws down the gold in the form of a brown oxide of gold, and for every particle of gold thrown down an atom of iron is taken up to supply its place. Now, why should not this take place in the great laboratory of Nature? The gold which is held in solution in the veins and lodes traversing an auriferous district would remain in an unworkable state until the presence of iron occurring in the same lode precipitates the gold as a brown oxide, or, perhaps, by the aid of intense heat which is generated at the time of decomposition, crystallises the precipitate in the form of iron pyrites.

Having analysed numerous samples of auriferous mineral from the west coast of Ireland, I found the average result to give 1½ oz. of gold to the ton, the matrix being either killas or calcareous quartz, but always containing a certain proportion of iron pyrites; in every instance where the pyrites was absent there was no gold. We see by this the average produce of gold in Irish auriferous mineral is small when the result of some assays of Welsh quartz gave an average of 3 oz. of gold to the ton; and in two samples I found 138 ozs. and 65 ozs. respectively to the ton of ore; this was very much decomposed quartz, and contained a large amount of ferruginous oxide.

I trust these few remarks will call forth the experience of others, and hope that 1859 will show more enterprise in unravelling the gold question than has been exhibited this year.

AN OLD SMELTER.

## MANUFACTURE OF IRON AND STEEL.

SIR,—I find that your last week's correspondents upon the pneumatic process are not disposed to allow me a footing with the other parties. I can only say—“Gentlemen, arrange it as you will, and let Mr. J. B. Howell, in his ‘strong position,’ take my place.” Perhaps I have a system of manipulation peculiar to myself; and if so, it is one of the peculiarities of my system to keep it to myself—at least, till the rival inventors have tried their wings, and proved their inventions; then, if all goes smooth, my system can be put by, and shelved quietly as no longer needed; if otherwise, then I may obtain, if not a footing, at least, perhaps, room for a toe, if only a petti-toe, in the arena of steel invention. Meanwhile, I offer with all courtesy a nut for Mr. J. B. Howell to crack—not a “homogeneous nut,” but some “ore bloom iron;” I had almost termed it “homogeneous iron,” but, on reflection, I considered that as the world was only big enough for one Alexander or one Caesar at a time, so it was impossible that two homo-metals could co-exist in this sublimity condition of matter and genius.

To cut a long story short, I have sent to your office a few specimens of “ore bloom iron,” such as [were pronounced by Mr. William Crawshaw to be the most excellent and extraordinary iron he had ever seen; and if Mr. J. B. Howell can match or equal these with the homo-metal, I will at once allow that he is in a “strong position.”

One of the properties of “ore bloom iron” is this: when heated red-hot and plunged into cold water, its tenacity, already sufficiently remarkable, is augmented to that extent that a bar of it will sustain an end pull amounting to from 60 to 100 tons per square inch without yielding. However, such as it is, there it is, for anyone to look at and try, if they feel so disposed.

I was not aware that Mr. Howell was the inventor of “homo-metal”—“Anglicæ,” “soft cast-steel.” My late father had succeeded in producing it readily a little more than sixty years ago; and at page 525 of his *Papers upon Iron and Steel*, he thus describes it:—“It possesses an uncommon degree of strength and tenacity, and is capable of an exquisite degree of polish, arising from its complete solidity, and the purity of fracture conveyed to it by fusion.” Now, my father never claimed the invention, so that the true inventor, Mr. J. B. Howell, must have made the discovery some seventy years ago, and, therefore, he must now be flourishing in, I trust, a very green old age.—Coleford, Dec. 15.

ROBERT MUSKET.

P.S.—I have sent samples of “soft ore bloom iron.” It is tougher, but not so strong to resist an end pull as harder “ore bloom iron,” though still exceedingly strong.

## THE RIVAL STEEL-MAKERS.

SIR,—From your last Journal, I observe that Mr. Musket appears discontented with my proposition, as he begs I should ascertain the merits of the inventions patented by the rival patentees. Now, I think the least that he should have done before making such a request to me is to prove that I am not conversant with the inventions to which I allude. For his information, I may state that I have carefully examined every patent bearing upon the question, and find that Bessemer's patents alone would accomplish everything desirable, and that Mr. Musket claims very little that would not be covered by Bessemer's patents; and after the success which Mr. Gossens has met with in Sweden, it has to be proved that Mr. Musket's modifications are in any way necessary. City, Dec. 15.

ONE INTERESTED.

## WHEEL EMMA.

SIR,—The steady progress of this mine, and increasing monthly returns of ore, is setting at rest the long-doubtful question of deep deposits.

For a considerable period it has been the fashion with some of the old class of miners to remark, where a copper lode is discovered rich at a shallow depth, “It is only a surface bunch,” which is intended to imply generally that it will not hold in depth. Such was the remark about the first rich mine in the St. Blaize district, which produced two millions worth of ore;—such was the remark of South Caradon, now, and likely long to continue, one of the best mines in Cornwall;—such was the remark of Devon Great Consols, the greatest mine ever yet discovered by man; and such was the remark of Wheal Emma.

This remark—“It is only a surface bunch,” is not the result of experience,—it is not the result of practical knowledge of the stratification,—it is not the result of inspection or exploration of the district, but it is the result of envy. Those people who indulge in it either never had a good mine, or if they had, they were not the discoverers of it. If they held a good position in connection with a good mine, they owe that position to some accidental or other circumstance, quite apart from ability as practical miners; and very frequently they are men who never took the trouble to think for five minutes in the whole course of their lives upon the subject of a lode, or the formation of a bunch of copper ore; and yet these envious persons would give all they are worth, or ever can hope to be worth, to make one of these discoveries. Just as it is recorded of a very rich man, who made his wealth not very honourably, that he said in his last hours he would have given all he possessed for a character.

When conversing upon shallow deposits of ore with the late Capt. Samuel Secombe, he remarked—“I am of opinion that no valuable deep mine ever existed in clay-slate formations, the lode of which did not at some point near the surface show a rich deposit of ore; or if no such rich deposit was ever discovered, I still believe that it does exist, although it may not be found in the same set in which the deep profitable mine is worked. Depend upon it,” said Capt. Secombe, “that every large mass of copper has had a vent-hole somewhere; and wherever a rich outcrop is found, accompanied with a true gossan, that is the chimney, so to speak, of the deep deposit, and those are lucky who discover it.”—Dec. 15.

AN OBSERVER.

## [ADVERTISEMENT.]

## ESGAIR-Y-MWYN MINING COMPANY.

SIR,—I understand that a call of 25s. per share has been made by the Official Liquidator on a broker in Liverpool, as a shareholder in this company, and that an unsettled counter-claim has been made for commission agreed to be paid him for his exertions in placing a certain number of shares in that place. His claim has been rejected on erroneous information, and on the ground that “the commission on such shares had been paid to me.” I beg permission, through your columns, publicly to state that I never was paid, nor received, nor did I ever charge, one fraction commission on shares either placed by myself or any other individual in this or any other company, and that such an assertion is utterly at variance with truth. My position in this reckless concern was this: I was solicited by the vendors to form a company, on terms, mutually agreed, of 1-10th interest on 10,000 shares of 25s. each, furnished from the vendors' allotment. My friends in London supported the undertaking, at my instance, and I succeeded. But as I afterwards respectfully declined to join a clique of jobbing shareholders in their “glorious campaign” (to use the terms of their written invitation, but which will be better understood in common parlance by “rigging the shares”), I was forthwith pronounced ineligible to conduct the affairs; in fact, a cabal was raised, a cheap and accommodating secretary engaged, and on a legal quibble I was dispossessed of the shares. I was entitled to pay me 800l. cash, in consideration of my consenting to cancel my former equitable agreement. No cash, however, was forthcoming. At length I received the reduced amount, represented by these now worthless unconverted scrip certificates, on which a contribution is now levied of 500l.

I regret the occasion of trespassing these details on your attention; but I owe it to myself to rebut the calumny referred to. Many of the unfortunate proprietors well remember that I adopted every constructive measure possible to prevent the present disastrous state of affairs, it not requiring much sagacity or foresight to determine that with such an executive and such management a crisis was inevitable.

In proof of the value of the property, it is alleged on unquestionable authority that in the hands of the present owners it is now producing a monthly clear profit equal to sufficient to pay a 10 per cent. per annum dividend on the whole of the ample capital lavished in law expenses and mismanagement by the late Esqair-y-Mwyn Company.

When similar valuable properties as this are obtainable, I apprehend that such lamentable instances of folly and criminality can only be avoided by the selection of a small number of respectable proprietors, known to each other, and wise enough to concentrate the management, by placing it in competent, intelligent hands, confining themselves with conducting the financial part of the undertaking, and dealing only with results. I have no doubt the pursuance of such a course, particularly in the early stages of legi-



limine mining enterprise, would generally secure harmony, and lead to success, rather than to the bickering, disappointment, waste of capital, and painful recrimination hitherto too frequently experienced by many prudent adventurers in larger and more heterogeneous companies.—Dec. 15.

J. B. HOS.

## EAST WHEEL RUSSELL, AND Mr. CROFTS.

Sir,—The committee of this mine deserve the highest praise for the course they have adopted with respect to Mr. Crofts, for his unwarrantable statements. What makes the matter so bad is, that I believe the committee are in a position to prove that Mr. Crofts was specially told that he was wrong by a gentleman whom he had spoken to on the subject when his article was only in manuscript, and when he was particularly informed that the 88 fathom level was not yet up to the point where the improvement had been looked for. And yet, in the face of that, he stated that the real value having depended on the cutting of the lode rich in that level, it having gone down in the winze below the 66, "the result has been the getting through the lode in the 88 fm. level, and finding it to contain, with some exceptions, not saving work." In fact, the shareholders are told by Mr. Crofts that the mine had been proved—that the point looked forward to had been reached—and that the result had been a failure, when he knew that the two former had not been accomplished, and that, consequently, no decision had been arrived at as to the real value of the mine. It requires little reflection to see the effect that such condemnatory assertions would have on many people who knew nothing about the writer, or the value to be placed on his remarks. A fair discussion on the merits of mines among impartial persons competent to give opinions is, of course, quite proper, but in all cases facts must be adhered to. In this instance facts are alluded to, and these are knowingly misrepresented by Mr. Crofts. He might, if he had liked, have presumed to give his opinion as to what the results would be, but he pointed out the points to which he had arrived, and it would have been taken for what it was; but when a person positively states that a thing has actually taken place, it is seldom or never supposed that he is telling an untruth. Now, however, there can be no confidence in anything that proceeds from some quarters. With regard to the mine itself, I will only observe that I have made the fullest enquiries, and found that, so far from there being any indication of failure, the 88 fm. level has hitherto been incomparably better than the corresponding place above in the 66, and that appearances fully justify the confident expectation of a great improvement in the 88, when it gets under where the ore begins in the 66, which will be in only 5 fathoms further driving. A winze is sunk 9 fms. below the 66 on a lode of the average value of 801. per fm., from being under which the 88 is yet 22 fathoms. The 88 continued to improve for some time, and latterly passed through a course of ore; and though not so productive in the present end, it must be remembered that what has been found was unexpected, and that the lodes of the richest mines become rich and poor alternately as they are driven on. I hope the step taken by the East Russell committee will have the effect of making some of your correspondents pay more regard to—

## LADY BERTHA MINE.

Sir,—I believe it is the desire of all interested in mining to have a correct report from the agent of the mine, and in the above I, for one, have hitherto received his weekly statement as a faithful representation of the actual position of the mine at the time of writing. But when we see the shares quoted, and the varied fluctuations arising from adverse reports furnished by other agents, it becomes the duty of every man, whether a shareholder or not, to expose the system adopted, and if possible arrive at a correct view of the affair; and should it be ascertained that parties have been committing an unjust and unparliamentary course, the object of obtaining shares by misrepresentation, I shall, upon being satisfied as to the truthfulness of my information, readily publish the names of the parties connected with the conspiracy.

It has been stated that a letter or report from Capt. Clymo has been made use of for the purpose of depressing the shares. If a report from Capt. P. Clymo, of South Canada, were shown me I should place the most implicit confidence in his opinion, while I entertain the same credit for that of the agent of the mine.

Capt. Clymo is represented to have gone underground and inspected Lady Bertha on Tuesday last; and I will put it in juxtaposition, as far as the report of Capt. Clymo has been given, and at the same time observe that Capt. J. Hodge, who inspected the mine, fully confirmed Capt. Metherell's report.

Capt. Clymo states, on Dec. 16, that the winze in the 20 is worth 4½ tons per fm. Eastern end, in the 30, stones of ore. The western end 1 ton per fm. Stops all poor. Capt. Metherell's report, Dec. 8, states that the winze in the 20 will produce 9 tons per fathom. The 41 cross-cut is turning out good work. The 30 west is producing 3 tons per fathom. The stopes in the back are producing 2½ tons of very rich ore per fathom. The 20 east is producing good stones of ore, and very promising. We have now about 70 tons of ore at surface and at the quay.

The agent's report of Dec. 15 will be seen in your usual column, and speaks for itself; and the advice this morning states the winze in the 20 is worth 10 tons per fm., valued at 801. per fm. These discrepancies must be explained by the agent, who is the party most deeply interested and responsible to the shareholders. I have myself received information this morning from the locality, and the writers state that the lode in the winze is looking splendid, and, exclusive of the copper ore at the quarry and on the mine, that there is a parcel of 30 tons on the floor, which by private assay is of superior quality, and gives 12 to 14 per cent. These observations I trust will draw a faithful statement, and be corroborated by facts. Not that I believe the report of Capt. Clymo was furnished to mislead, but it was made use of by certain parties here for the purpose of depressing the shares, and the result was tantamount to the intention.—Dec. 17.

A SHAREHOLDER.

## COAL AND COAL PITS.

An interesting lecture was delivered a few evenings since by the Rev. J. MITCHINSON, M.A., Fellow of Pembroke College, Oxford, and one of the Masters of Merchant Tailors' School, "On Coal and Coal Pits."

The lecturer commenced by remarking that to coal, to this well-known semi-lustrous combustible mineral, our commercial and manufacturing prosperity was to be ascribed. The extraordinary aspect which a coal country presents to a visitant, the lurid glare which pervades the whole horizon, and the first visit to a colliery, were aptly depicted. The miner was described as a fine-grown, healthy man, and of a cheerful temperament. A minute and interesting description followed of the underground workings and system of ventilation. Then the lecturer, premising that rocks included all substances which compose the crust of the earth, proceeded to divide them broadly into the igneous, or unstratified, which are the result of heat; and sedimentary, or stratified, which are owing to the agency of water, whether fresh or salt. These latter contain organic remains of fossils, and to these coal formations belong. But in one circumstance they differ from the rest of the stratified rocks. Of these, usually, each stratum is continuous over a considerable portion of the earth's surface, and although it may be obscured by superincumbent strata, research will certainly discover the identical stratum, or its analogy in widely distant regions; coal, however, is found usually filling hollows in the older deposits, technically called basins; hence the carboniferous limestone, the next underlying deposit, crops out more or less all around the edges of a coal basin. These basins vary in extent from about six miles, or even less, in diameter to 200 miles. From these data we may fairly conclude that the mode of deposition differs materially from that of other strata, and that the coal measures form part of a large group of strata, known as the carboniferous system. They vary in thickness from 1000 to 11,000 ft., so that the vertical thickness of the whole carboniferous series is considerably upwards of two miles. Probably no deposit is more subject to faults, or dislocations of strata than the coal measures. A "fault" is the name for an upthrow, or downthrow, of large masses of rock, often extending over a considerable area, and entirely breaking the continuity of the stratum. These dislocations are caused by subterranean movements—analogue, in fact, to earthquakes, though probably more gradual in their operation. Coal itself is a compressed, chemically altered mass of vegetable matter. The tissue of trees may be detected in the substance of coal by fracture or burning; if the ash be examined with a lens, in certain kind of coal, stems and leaves of plants are distinctly traceable. But, besides this, actual plants—nay, more trees, and vegetables of tree-like dimensions—have often been discovered embedded in the coal. Many of these plants not only belong to an extinct species, but to genera to which our modern world offers no parallel whatever. They must have been of gigantic dimensions, and have flourished in dense luxuriance. Many of them appear to have been of the fern-tribe, of which an infinite number of genera are already enumerated in the fossil remains of the coal measures. Along with these occur several unknown families—as *Calamites*, which seem to have been not unlike equisetum, or horse-tails, swelled to colossal proportions; *Lepidodendra*, a family somewhat resembling the club mosses of our heaths, combined with the anacardias of the tropics; *Sigillarias*, or seal plants, so called from the seal-like impressions which run up their ample stems (of all these diagrams and specimens were exhibited), and others which have no analogy in existing nature. These plants are found in very different conditions of preservation. In some cases, the leaf has left its delicate impression perfect on a block of shale, sometimes only a few stray leaflets survive in a detached form, sometimes the masses of broken branches lie in a confused heap, and sometimes stems are found standing in an upright position, embedded in the hardened mud which immediately underlies the coal. The whole of these plants are undoubtedly land plants, and so prove the existence of land; a fact which is corroborated by the circumstance that, in some places, the remains of fresh water muscle-shells alternate with the vegetable debris. The lecturer then proceeded to draw a series of conclusions as to the circumstances of their deposition, from their present actual state. They may thus be briefly enumerated:—The carboniferous is the first age which permits us to infer the existence of land in any large quantities. The land, such as it was, was clothed with a rank and luxuriant vegetation. The land was chiefly broken up into islands, for arising from the analogy of the southern hemisphere of our own period as compared with the northern, the moist, equal heat of an island-studded ocean is more favourable to luxuriant fern life, such as the coal measures present, than a continent. Some large islands—Australia to the primeval Polynesian—must have existed, to account for the great Appalachian coal field of North America. Further, the general temperature of the globe must have then been considerably higher than the temperature of corresponding latitudes at present; a fact proved by the tropical vegetation of that age, and corroborated by the existence of laminated corals, chambered shells, like the Nautilus, and swarming crinoids, in the underlying carboniferous limestone. Lastly, the surface of the globe at the time of their deposition must have been subject to alternate elevations and depressions, to account for the many successions of shale, coal, and sandstone which compose a coal basin, a circumstance not without parallel in existing nature, as, for instance, in the well-known case of the Temple of Serapis, at Pozzuoli. After embodying all the facts adduced in a sketch of the aspect which the carboniferous age must have presented, which he compared to the scenery of the river estuaries of the Caracas, as described by the pen of Mr. Kingsley, the lecturer went on to observe that, since coal is the debris of decayed forests, there must be beds of coal of some kind in the later formations in which land plants occur. To distinguish such mineral from coal proper it is called lignite, and has been worked in the lias and oolitic formations of Yorkshire, though more for the sake of jet than for any other purpose. These detached strata of lignite being sometimes extensive, many who have but limited notions of geology have thought them identical with the carboniferous formation. Many a one with more zeal than knowledge has often before now proclaimed a discovery of a bed of workable coal within easy distance of London, but somehow it is never worked, and the discoverer and discovery alike subside into obscurity. Two years since a discovery of this description was mooted in the *Times*, but it has ended (and it would be well if all such hallucinations did so) in harmless talk. Where they have any foundation at all they are merely instances of the discovery of a band of lignite in one of the later formations. No coal will ever be profitably worked, at least in England, if anywhere, except the genuine production of the great carboniferous formation. There is in the circumstances of the deposition of coal a grand instance of beneficent design. In the economy of Nature carbonic acid gas, which is so deleterious to human life, is necessary to the life of plants; it has been ascertained that they respire much as animals do,

though in an opposite manner: they imbibe carbonic acid and exhale oxygen when under the influence of light. This gas is almost invariably exhaled from the earth in regions which have lately been subject to volcanic agency. It is, then, no unreasonable hypothesis that the atmosphere in the pre-carboniferous age was universally charged with this poisonous gas as the result of the then gradual cooling of the earth, and that an hypothesis which gains some colour, that, with the exception of rare reptilian remains, no air-breathing animal has ever been found in the earlier deposits. But in each subsequent deposit the remains of animals are found in constantly increasing ratio. It was by these grand forests, then, that this gas was absorbed, and the earth was thus rendered fit for higher forms of animal life, and, more than that, the carbonic acid thus imbibed was stored away for future use in those masses of vegetable matter which, silently rotted away, were submerged by the ocean, and a huge mass of superincumbent strata was thus piled on them, this mass serving in the general economy to compress and solidify the bituminous vegetable matter that was thus entombed. And although there is an almost incredible quantity of coal consumed yearly, yet the supply, comparatively speaking, is inexhaustible within some ages. Even in our own day—and immediately as the result of the Russian war—seams of coal have been opened out in Asia Minor. Still, the exhaustion of coal would be a fatal blow to our national prosperity. That greatness as a nation is dependent upon carboniferous rocks does not admit of a doubt; and to the prompt and plentiful supply of this mineral is our success in manufacture to be ascribed. It is our coal seams we must thank for the rapid strides and the successful application of the giant power steam. But there is one great application of that force specially associated with our coal fields—I mean our great railway system. This is the very child of the colliery—invented by a collier—born, as it were, at the pit's mouth, and passing the first years of its life in the service of the colliery. It was from the tram-roads of the Newcastle collieries that the idea of a railway was first adopted. It was at the colliery at Killingworth that the first locomotive was set in motion, and its inventor was George Stephenson, a collier, the son of a collier, born in a colliery village. And to that simple fact we owe directly that magnificent railway system, which is at once the grand discovery and the distinguishing feature of the nineteenth century.

## MINING IN IRELAND—ROUGH NOTES.—No. VII.

During our examination of the Roughly Valley our attention was directed to the ruins of an ancient fort near Killowen House, and about two miles east of the town of Kenmare; for we learn that on the breaking out of the rebellion of 1641 the native Irish took arms, and laid siege to the Castle of Tralee, to which a great number of English families had fled. After a siege of six months the place surrendered, and the Irish remained in possession of the country till 1652, when Ludlow, with an army of 4000 foot and 200 horse, again reduced it. Extensive confiscations of the estates of the native Irish followed. Among the new proprietors was Sir William Petty, who obtained a large grant of land in the neighbourhood of Kenmare, and commenced the smelting of iron, which he carried on with vigour while timber lasted. A colliery was also opened up by him. Sir Wm. Petty round the head of Kenmare River, who were attacked by the native Irish in 1688, and compelled to abandon their possessions. The Protestant colony retired for shelter to the fort at White House Point, near Killowen House. The ruins of which form an interesting memento of bygone days. They are pleasantly situated on the banks of the River Roughly, and the hardy Cromwellians, no doubt, found abundance of lead ore as well as iron, as we find extensive excavations near the old fort in question, and fine specimens of galena in the debris. These ancient works, so far as we could ascertain, have remained in situ two since the year 1691. The confiscation consequent on the last rebellion amounted to 90,116 acres, of an estimated total value at that time of nearly 50,000. The principal proprietors at present are the Marquis of Lansdowne, in whom the Fitzmaurice and Petty estates centre; the Right Hon. H. A. Herbert, M.P.; Lord Kenmare, the representative of the Brown family; Lord Headly, the MacGillivuddy, Lord Ventry, and the Knight of Kerry. In 1652, Dr. Petty was appointed physician to the army in Ireland, and in 1654 he was employed in the survey of forfeited estates. He was subsequently engaged as a commissioner in dividing these lands among the officers and soldiers of Cromwell's army; when, besides the lands allotted to him, he made a valuable discovery. He also acted as secretary to Henry Cromwell, Lord-Lieutenant of Ireland, and appears to have been well received by Charles II. at the Restoration, and in 1661 was knighted. Sir William Petty died in 1687, and his widow was created Baroness Shelburne. His eldest son succeeded to the title, but dying without issue, it was revived in Henry, the second son, great-uncle of the first Marquis of Lansdowne. Sir William Petty clearly foresaw the advantage of a union of Great Britain and Ireland, and of a free commercial intercourse between the two countries. The Survey of Ireland, which he made during the Protectorate, continues after the lapse of two centuries to be a work of reference in courts of law in matters relating to landed property. In his work, *Taxes and Contributions*, the doctrine was first clearly stated that "the labour required for the production of commodities alone determines their value."

Leaving the interesting ruins of the fort at White House Point, we pass on to the east towards Kilgarvan village; and near the village of Cahir we found extensive ancient works, known in the locality as the "Old Ironworks." These works are situated near the junction of limestone and soft light clay-slate. They appear to have been worked open from surface for a great distance in length and breadth, and when the woods at the north side of the Roughly were exhausted the iron ore was carried to the wood at the south side of the river to be smelted, as we find large quantities of iron slag on and near the banks of the river. It would, therefore, appear that those ancient works were carried on so long as timber lasted for smelting the ore, and only ceased to work for want of fuel—nearly 200 years ago. In a line with the Old Ironworks are lodes of copper and lead, opened further east, but which appear to converge in the direction of the ironworks. The lead lodes occur in limestone, and the copper lodes in the clay-slate, near the junction of the strata; and as the old works are from 40 to 50 fms. wide, it is a question of great interest whether this great deposit of iron ore may not be the back of a copper or lead lode, or both. This place is commanded by water-power sufficient for extensive machinery. A short distance to the west of the Old Ironworks a pipe vein of galena has been discovered, and worked to a depth of 40 fms. This vein was discovered in the lime rock near the surface, which, we understand, is continuous, and will produce in the bottom level from 3 to 4 tons of solid ore per fm. This pipe of ore is about 8 fms. long; other veins, however, have been found in this locality in the limestone, some of which are 6 ft. wide, and contain fine specimens of galena, blende, &c. The lodes of galena and copper ore are traceable into the lands belonging to the University of Trinity College, Dublin, in which surface trials have been made in several places, and one of a rich quality discovered. There is an abundant supply of water, which may be applied for the purpose of pumping and preparing the ore for market. The lead lodes are confined to the limestone formation, and the copper lodes are found north and south of the limestone, but parallel with it, in clay-slate, and also near the junction of the strata. About a mile east of the Old Ironworks we came to an extensive copper mine, which has, we are informed, produced upwards of 20,000. worth of copper ore, and worked to a depth of 66 fms. from surface. On this property there is a powerful steam-engine, and valuable erections, and machinery adapted for carrying on the works on a large scale. There is a splendid reservoir, which supplies the crushing-mill, and stamping-mill, and a fine lode observed in this mine a very useful machine, worked by a water-wheel, and designated a "cobbing machine." It breaks the stuff by a simple and inexpensive process to a proper size for the crusher, and does the work of 100 girls or boys, formerly employed to cob and spall the stuff. This machine is the invention of the manager of the mine. There are several lodes in this property, and that which has been worked to the greatest depth contains large quantities of goossan and the carbonates and oxides of copper near the surface, and in the bottom level the ore is of the purple and yellow kind, and the end, it is said, will produce 3 tons of solid ore per fm. This great goossan back of the lode is probably a continuation of the Old Ironworks lode, as it is in a direct line with it. This lode, we understand, varies in breadth from 3 to 10 feet; it underlies south about 40 fms., when it becomes very nearly perpendicular, and in the bottom it has a slight inclination north. We noticed a large cross-course about 30 fms. east of the engine-shaft, but it does not appear to have been reached by any of the levels. We learn from what we believe to be an undoubted source of information, that in order to place the mine in the Dividend List it will require the outlay of about 1000l. to alter the pump-work, and sink a new engine-shaft.

## COPPER MINING COMPANIES IN AMERICA.

BOSTON, Nov. 30.—There has been an unusual activity in mining shares for several weeks—especially in those of the Portage Lake. The impression is quite current in this community that the adventures in that district are rapidly approaching the earning of dividends. With this view it is reported that considerable investments have recently been made. Through this and the concurring influence of the maturing of short contracts, especially in Fawcett, prices have advanced with much rapidity. At this date it is not practicable to give the total shipments of 1858 from Lake Superior; but it is generally conceded that they do not fall behind those of 1857. If the product of the two leading mines has been somewhat less, the decrease has been more than offset by the gratifying increase of the Portage Lake district. Ingot copper is in better demand, at 23½ c., four months.

COPPER FALLS.—Ball's stamps worked well through the month of Oct., stamping during 598 hours—less 90½ hours detention—1461 tons of rock, producing 21 tons of 70-10th per cent. ingot copper. This success is of vast import to the whole region traversed by the east and west deposit, known as the Ash Bed. If the problem is now solved of working 1 per cent. stamp stuff at a profit, the product of Lake Superior might be doubled in a few years. The mine produced in Oct. 21 tons from its own workings, and 23 tons on tributaries' account: total shipped this season, on company's account 79 tons, and on tributaries' account 149½ tons.

FRANKLIN shipments this season have been 96 tons.

ISLE ROYALE shipments this season 271 tons.

MINNESOTA.—Products for Oct., 141 tons—reduced by a delay of six days in repairs, caused by an accident to No. 5 shaft.

PITTSBURGH AND BOSTON.—The annual report for the financial year presents the usual admirably distinct statement of the company's affairs. In addition to the customary tables of the costs of sinking, driving, and stoping, is a carefully prepared analysis of the cost of preparation of stamp stuff. This information is particularly valuable, since, according to present appearances, a majority of the mines at Lake Superior do not depend on mass copper for dividends. It is to be hoped that the directors of all mining companies will henceforth require similar exhibits of cost in this department, and publish them for the benefit of the mining interest. The following are the items of cost for six months, ending June 30, 1858:—Product delivered from the shaft, the prior cost having been charged to mining expense, 7398 tons of rock, yielding about 3 per cent., or 231½ tons of shipping copper, result in ingots not stated. Cost of fuel for burning rock, \$305-16; oil, \$6-25; labour, \$2607-96; total, \$1919-37, or 39½ cents per ton, for preparing rock for stamps. Labour in stamps and washing floors, \$4810-41; engineers and firemen, \$769-17; oil, \$173-75; tallow, \$47-20; wood, 936 cords at \$2, \$1872; wear and tear of machinery at 20 cents per ton of rock, \$1479-60; total, \$9158-13, or \$1-23-8-10th per ton for washing and stamping, (say) \$2-22 for each ton of copper as shipped. The total sales for 1857 include about 35½ tons of refined copper, accumulated from slugs, and for which allowance is made in the statement of the yield per cent. of that year. The mining cost for 1857 includes two engines and appurtenances, at a cost of \$36,897-26. The surplus of Nov. 30, 1857, after deducting the dividend paid in 1858, (say) \$130,897-26, is made up of merchandise in store, \$25,094-92; groceries and provisions, \$28,888-83; and mining supplies, \$27,867-06; cash and copper since sold, \$5,551-45.

ROCKLAND.—Product for October, 19 tons.

QUINCY.—The shipments have far exceeded the promises of the managers, being 331 tons—81 tons more than the highest public estimate. The Fawcett vein has been traced 3900 feet on this location.

DUPES, BECK, and SALLIS.

## Meetings of Mining Companies.

## SOUTH EUROPE MINING COMPANY.

The first half-yearly meeting of shareholders was held at the company's offices, Bridge-street, Blackfriars, on Wednesday.—Dr. LAWRENCE in the chair.

Mr. Noss (the secretary) read the advertisement convening the meeting.

Mr. THORNTWATTE (managing director) read the report, as follows:—

The short time which has elapsed since the incorporation of this company prevents your directors from laying before you at this present opportunity any lengthened statement of the mining operations which have taken place upon your property; it must suffice to state that the necessary mining tools and appliances have been purchased, and are already at the mine; and, also, that the works have been commenced, and, although slightly retarded by the heavy rains which prevail at this season in the South of Spain, are progressing favourably.

Immediately after the establishment of your company, in the month of June last, the district of Huelva, in South Spain, was visited on behalf of the company by an eminent mining engineer, Mr. John Petherick, accompanied by your managing director, Mr. W. H. Thornthwaite. These gentlemen made a tour of the province, and inspected the chief mines thereof, including the famous Rio Tinto, belonging to the Spanish Government, the San Miguel, La Concepcion, Calanias, &c., also the mines now belonging to the company—the Monte Romero, San Leon, and Santa Rosa. The following is a copy of Mr. Petherick's report:—

GENTLEMEN, I beg respectfully to submit for your information the following report on the mines of Monte Romero, Santa Rosa, and San Leon, situated in the province of Huelva, in Spain, which, in accordance with your instructions, and accompanied by Mr. Thornthwaite, I have recently visited for the purpose of ascertaining, from personal observation, their present state and prospects, and advising you as to the propriety of concluding the purchase of them. It is, however, necessary to state, in the first instance, that the metalliferous deposits of the province of Huelva are of such a peculiar character, and the conditions under which they occur are so different in every respect from those of other mining districts of which I have had experience, that with a view to obtain such additional information as I considered necessary to enable me to form at least an approximate estimate of their value, in a commercial point of view, we deemed it advisable, previous to proceeding to examine the above-named mines, to visit the extensive Government mine of Rio Tinto, as well as several other of the principal mines now in operation in the district, where we obtained such valuable and essential information regarding the nature and extent of the several deposits, and the quantity of copper contained in the ores, as fully established beyond all doubt the following most important facts:—1. That wherever a deposit, or more correctly mass, of ore may be found to occur, it will prove to be continuous, and to increase in width as explored in depth.—2. That the deposits already explored are invariably of great magnitude, varying from 12 metres to upwards of 100 metres in width, affording in all cases an inexhaustible supply of ores, the produce being limited only by the scale of operations.—3. That the ores occur uniformly in a compact state, and free from admixture with other substances, and consequently they require no expensive, comparatively, to prepare them for the processes necessary for the extraction of the copper they contain.—4. That the quantity of copper the ores contain averages from 3 to 4 per cent., and that it is uniformly, with some unimportant exceptions, disseminated throughout the mass.—Assuming the correctness of the foregoing data, it necessarily follows that the principal, if not only, risk attending the prosecution of mines in the Huelva district is that of the expense necessary, in the first instance, to ascertain the existence of a mass or deposit of ores in any property proposed to be explored; for, when once discovered, the result of past experience proves that it will be continuous, and, if properly and systematically explored, yield permanent and ample remunerative returns to the capitalist. With these preliminary but necessary observations, the result of a careful examination of the principal mines of the province, I will now proceed to state my opinion of the before-mentioned mines, brought under your notice, with a view to your purchasing them.

THE MONTE ROMERO MINE.—This mine is situated in the direct line of the principal metalliferous deposits, and between the two mines of San Miguel and San Leon, both of which are now in successful operation. The rock formation is schist or clay-slate, similar to that which prevails throughout the province; with irregular masses of porphyry occurring at intervals; and the geological conditions and surface indications, so far as I could ascertain them from a careful examination of the property, correspond in all essential particulars with those of the productive mines of the district; and I would here observe that the close resemblance they bear to those of the rich mine of Calanias, situated about two leagues to the south, where the mass of ore has been proved to be considerably more than 100 metres wide, is most striking. Two Roman adits have been driven in different directions, through the property to a considerable extent, the shafts of which are distinctly visible at the surface; whilst large masses of "scoria," or slag, cover the surface to a considerable extent, proving incontrovertibly, if we may judge from the results of recent experience throughout the province, the existence of a considerable deposit of ore in the property. The mine consists of nine sets or "perpendiculars," comprehending the whole of the property containing the indications I have described, adding, in my opinion, to its value for mining purposes. The underground workings, not being accessible at present, I was necessarily obliged to confine my investigations to the surface, but, taking into account all the circumstances described, and particularly the occurrence of the large quantities of slag scattered over the surface, which alone may be considered almost infallible evidence of the former productiveness of the property, I can have no hesitation in expressing my confident belief that this mine contains a valuable deposit of ore; and, for the purpose of ascertaining its position and probable extent, I would respectfully advise you to incur the expense of clearing the two Roman adits, and, if necessary, enlarging them; and thus establishing, beyond all possibility of doubt, the existence of the ore previous to the adoption of the ulterior measures necessary for the prosecution of the concern. Not being aware of the extent or condition of the two levels proposed to be cleared, I am not at present prepared to state with any degree of certainty the probable expense of the preliminary operations, but I am of opinion that under the most unfavourable circumstances, the cost will not exceed 1000l., if the works are conducted with a due regard to economy, whilst, in all probability, considerably less than that sum will be sufficient for the accomplishment of the object in view to a satisfactory extent.

SANTA ROSA AND SAN LEON MINE.—This mine—for although it bears two names it may for all practical purposes be considered as one concern—is situated about 5 leagues south of the Monte Romero Mine, and immediately adjoins the Tintillo Mine, which belongs to a Spanish proprietary, and had been worked for some years on a comparatively small scale, with considerable success. The rock formation is compact clay-slate, and, on examining the surface, I could discover no indications of a decidedly favourable character, whilst there was a total absence of those heaps of scoria which are considered an almost certain test of the existence of deposits of ore in the other mines of the district. A Roman adit has been driven into the mine, but has only been rendered accessible to the extent of about 100 yards, and an examination it presented no indications whatever of a favourable character. Another adit level has also recently been extended into the hill about 30 yards, some distance below the Roman adit, without leading to any discovery of the slightest value, the slate rock remaining uniformly hard, compact, and unaltered. This mine consists only of five perpendiculars, or sets, covering comparatively only a small space of ground, and must, therefore, be regarded as being much less valuable than Monte Romero, or other mines, containing a greater number of perpendiculars, although, in other respects, the circumstances might be similar. On a careful consideration of all the circumstances, and taking into account the uniformly compact and unaltered character of the slate rock, as well as the total absence of the scoria at the surface, as before noticed, I do not consider that the prospects of this mine are in any respect of a sufficiently decided and encouraging character to justify my advising you to pay any money for the property in its present state; but it having been stated, on competent authority, that one of the workmen had succeeded in penetrating to the end of the Roman adit, where it is alleged he discovered some ore, I would advise you to incur the expense of clearing the remaining portion of the level, which cannot, I think, exceed 500 l. to 1000 l., at the utmost, provided you do so, without paying any money for the mine, in the first instance, making the payment of the purchase money contingent on the result of the experiment, and incurring no liability beyond the actual cost of the work, unless a valuable deposit of ore shall be discovered. I do not consider it necessary on this occasion to trouble you with any observations relative to the exportation of the ores to England in their crude state, being convinced that in the absence of a cheap and expeditious mode of transit to the shipping port their commercial value consists exclusively in the copper they contain, and for the extraction of which they can only be treated with advantage in large masses on the spot, and by comparatively inexpensive, though tedious, means of concentration. I may add, in conclusion, further remark that the mines throughout the province are, with one exception, conducted in every department in such a slovenly and unsystematic manner, and with such an utter disregard of economy, that, assuming they now pay the working expenditure, the saving to be derived from the introduction of a proper system of management would alone be sufficient to pay a remunerative percentage or profit on the capital expended in opening the mines.—JOHN PETHERICK.

Acting upon the suggestions contained in the foregoing report, your directors have secured the Monte Romero Mine, and the same has been transferred in perpetuity to your company in all the forms required by the Spanish mining laws—the South Europe Mining Company (limited) being entered in the Government books of the province as the sole legal owners of the mine. With respect to the Santa Rosa and San Leon Mines, they have made such arrangements that the money payment for them shall not be made until a valuable deposit of ore be discovered. It is difficult, if not impossible, for any one who has not had the opportunity of visiting this extraordinary mineral district to appreciate the vast amount of wealth which there only awaits the enterprise and science of the present day to develop, and bring into public utility, and which, there can be no doubt, is destined at no long period to exercise a marked influence upon the copper markets of the world. As the company's mines are of similar character to the Government mine of Rio Tinto, it will, no doubt, be interesting to you to have a more particular description of these celebrated mines, which may be taken as a type of the whole district. From investigations lately made, Rio Tinto has ceased to be that isolated and exclusive mine it was until recently reputed, it being now notorious that it forms but a small part of a zone of copper ore, ranging some 36 leagues through the provinces of Huelva and Seville, and cropping out powerfully at Grandora, in Portugal. In itself, however, it is no recent discovery, having been worked at intervals of ages for 1800 years. These celebrated mines are situated some 50 miles inland. Innumerable shafts and adits, now in ruins, attest the magnitude of the operations in ages long since past. The present works are comprehended within a square league reserved to itself by Government, and having within it a village, called the "Mining Village," containing a thousand souls connected with the mines. Ages of inaction mark the intervals between the ancient and the modern works. Slags towering to the height of a hundred feet, and extending for miles, proclaim with unerring certainty the mineral profusion around; whilst the gloomy aspect of these hills of black scoria raised by human enterprise, and to which the world, perhaps, affords no parallel, fills the spectator with admiration of that energy which has long since become dust. Amongst this relic of former times are found Roman coins, monuments, inscriptions, columns, domestic utensils, sepulchres, &c. The oldest inscriptions met with are of the reign of Nero (A.D. 97), and the most modern have the effigy of the Emperor Honorius (A.D. 423). Remains of lead and litharge, rich in stiferous silver, are intermixed with these slags; and as lead mines are unknown in the province, it is presumable that lead was brought hither from other parts for cupellation, for the purpose of extracting from these copper ores the gold and silver they are known by innumerable analyses to contain. These colossal indications have until lately had a depressing effect on researches elsewhere; but recent investigations have established the fact of the province possessing many Rio Tinto works by the ancients, and this in localities easily accessible to foreign coal and machinery, as, for example, the company's mine at Sultana. The importance of the foregoing will be best comprehended by an analysis of the ores common to these localities and to Rio Tinto:—Pure copper, 4.167; iron, 41.900; sulphur, 49.833; matrix and loss, 4.200=100.000.

The Government mines furnish the precipitation works with some 4000 tons of ore per month. The cost and loss attendant upon this process, called by the Spaniards "cementation," and which may be briefly described as dissolving out the copper from the roasted ore with water, and then precipitating the copper by means of iron, will be readily comprehended on learning that the iron consumed in it comes from abroad, and has to be carried some 50 miles to the mines on mules, whilst of the quantity of copper contained in the ore more than one-half is lost or runs to waste with the water, yet, notwithstanding







west; a new shaft still further east must be the result, in case the ore ground continues in depth. Looking at the mine in the most favourable view, I cannot see much chance of making a fair trial without a further outlay, in addition to the returns that may be made from sales of ore. In conclusion, I beg to say that I entertain a favourable view of the mine, and after it is properly developed good results may be reasonably expected, but, as I before stated, it will be the work of time to determine.—JOHN DALE.

From Mr. E. Cooke:—The market has not been quite so active this week as for some time past. This slight reaction is no more than could be expected at this season, when the public generally narrow their operations in order to enjoy the festivities of the season. The temporary lull, however, presents a favourable opportunity for purchasing good mining stock, as there is everything to indicate a considerable rise in prices in the coming year. It is gratifying to notice the increasing business in this class of property, which is attributable to the more extended market produced by the recognition of British mines on the Stock Exchange as a medium of investment, many of which pay from 12½ to 20 per cent. on the current price, either bi-monthly or quarterly. In last week's Journal a few mines were named by the writer as being among the dividend and progressive mines, in which any reasonable amount may be invested with a view to receive a good return in dividends, or large profits in the increased value that will be attained by the respective mines. Wheel Adams may be particularly noted as an exceedingly cheap mine. The cost of working and laying it open properly in order to increase the returns, it is stated, can be defrayed from the burrows or refuse of the former company, while there are thousands of tons of blende and galena, with paying quantities of lead, already discovered and laid open. The best proof, however, are the regular sales of the former article that have been made, and about 100 tons being again ready for market. Why the former parties, who have the adjoining mine, allowed such a property to pass out of their hands the writer does not know; still their having done so does not make it the less valuable. With good dividends in the prospective, and at so distant period, there are not many mines that offer such chances for large profits at the present price, 26s. 6d. to 28s. 6d., as Wheel Adams.

## CORNISH MINE PHOTOGRAPHS—SECOND SERIES.—No. IX.

CARN MARTH HILL, GWENNAP.

This elevated spot is one of the great granite bosses of the supposed substrata of Cornwall on which the clay-slates, and other metalliferous rocks, are superimposed. Its outline and characteristic are not of that abrupt and picturesque description which render the Carn Brea Hill so attractive to strangers; it is, therefore, less visited by them for that reason. We do not purpose dwelling so much on this part of the subject in our paper, as on the mining instruction to be reaped by observation from its eminence; though much might be gleaned from Carn Brea of the Illogan Mines, the Gwennap series on the east are of a different character; notwithstanding they produce similar metals, the minerals and strata in which they are discovered differ materially.

This hill, or miniature mountain, is quite as high as the Carn Brea, and commands an equally extensive view. From it may be seen the Bristol and English Channels, giving a tolerably clear idea of the narrow track of Cornwall's peninsula at this part. It is a particularly barren spot. Though surrounded on all sides by mines of considerable magnitude, and of unheeded-of, incalculable value, its granite base, unlike the Illogan rock of that name, has never been wrought to advantage, and has, therefore, got so much into disrepute as to deter further trial. From it, however, spring the series of elvan dykes which are supposed to have such powerful influence on the stanniferous and cupriferous lodes of the Gwennap and Kea Mines. The elvans are of two varieties, hard and soft, and very like granite in appearance, but on examination will be found to be importantly different; they are, however, favourite rocks with the miner, and in this locality abundant; the hill may be said to be the great centre of mines, as our description will, we hope, display.

We were accompanied to the summit by a friend who had never ascended it before, though he had been visiting the Cornish mines for some time; it was, therefore, necessary to point out the leading features of the landscape to him, as well as to describe and name the different mines within view; in doing so, our description will, we trust, serve as a correct guide to our readers.

Within a radius of two miles from the spot on which you now stand, more than 20,000,000—aye, than 30,000,000—worth of minerals have been raised from the bowels of the earth, and have been wrought for generations. That narrow winding valley on the south-east was the scene of, perhaps, some of the earliest endeavours at mining ever practised in this country; its origin has been lost in oblivion; but certain it is the Carnon Stream, for that is its name, was wrought at a very remote period, possibly before the present race inhabited this island. Down this valley at your feet must once have rushed a mighty torrent, hurling a prodigious quantity of tin before its impetuous flood, thus providing an easy mode of procuring it, when man, from his imperfect knowledge of metallurgy and gunpowder, would have been unable to pierce the tremendously hard rocks even now finds it difficult to explore. Wonderful Providence! Striking illustration of order and contrivance in the works of the Deity! In working this stream ample evidence was discovered of the primitive races who sought tin here. The implements of work were wooden shovels, in a few instances shod with iron, showing how valuable a metal iron must then have been. Many picks formed of the horns of deer were discovered, as well as other contrivances of a rude construction. The ingenuity of the present age has not only enabled the tinner to rework the old men's refuse at a great profit, but to pursue his avocation beneath yon tidal river, where you observe a number of shipping. Yes, beneath the navy there, conveying coal to and carrying off the produce of the mines, works the tinner, at a depth of sixty feet, in silence and safety. That is the port of Devon, the entrepot of the mines of this district, by which, indeed, it was entirely created. That railway, whose locomotive you may perceive runs to Devon, is of vast advantage to the neighbourhood—watch it; see how it threads through the different mines with its immense burden!

This group of engine-houses are the surface buildings of the United Mines: let us count—one, two, three, aye, seven engines in a small space. Those beyond, in the same line, are the Clifford Mines. Still further east are the Great Badden, Wheal Jane, and East Falmouth. On the north of parallel to and in immediate proximity, are the Great Consolidated Mines, with their ten enormous engines. On the east are Nargles and Wheal Sperries, Wheal Whiddon, and West Wheal Jane. Now, if you observe the run of the burrows, you will perceive the lodes of these mines run a little to the south of east and north of west: when we descend I will show you their dip, or inclination from the perpendicular. But look further north; that group is the St. Day United Mines, beyond is the Creagbrawe and Penkivel Mines. Still further north, and parallel, are the Wheal Jewel, Wheal Damsel, and West Damsel; that very extensive mine on the still further north is the Great Wheal Busy. The village, whose church you may perceive, is Chacewater; that nearer is St. Day. The scattered engine-houses you see still further north are in the St. Agnes district, and comprise North and South Ellen, the Great Trywannah, Wheal Towan, &c. Besides these, on the hill you see Polbren and Polberro. The hill is St. Agnes' Beacon, a place we purpose visiting, and passing its peculiarities in review.

There is Redruth, with its vast multitude of mines, we have already described. On the north-west is our old site, Carn Brea; that on the west Carn Menez Hill, another boss, around whose base tin mines abound; but as that is out of the subject matter of this paper we leave it. There is the Penstruthal; there, further south, is Wheal Comfort; that on the hill, just to the south-west, is Tresevan; that mine at our feet is Old Ting Tang; beyond it, Wheal Moyle and Wheal Squire. These vast heaps of debris are the indications of the extent of these subterranean excavations, at the bare idea of the cost of exploring which the imagination staggers, and makes the uninitiated shudder.

Having taken a lengthened survey of the most interesting subjects within our view, we descended the hill to visit the principal mines, and make enquiries by which we might illustrate the subject of our discussion on our pedestrian journey—Does Cornish mining, after all, conduce to the national wealth, as well as to the local exchequer? To this end we visit the United Mines, taking them as an average of the mines in the Gwennap district, which, we were informed, were a fair criterion. Before doing which we proceeded to the spot at which we promised to show the underlie, or dip, of the lode; this we found at the base of the Nargles Hill, where the miners have staked the lode to the surface, and the vein is denuded. This great lode is from 14 to 20 feet wide, dips north 20 deg., is composed of capel, jasper, quartz, prair, chlorite, oxide of iron, munda, copper, and tin ores, and is the *beau ideal* of what a lode should be. Being wrought to the open day, the *modus operandi* of mining may be here readily and correctly understood by those who have not physical power or nerve to descend a mine. We know not of an example affording so practical and favourable an illustration: it is well worthy a visit, and is easily found. Our friend I was delighted with the opportunity of studying so fine a lode as this by daylight.

The UNITED MINES have been wrought from time immemorial—at first for tin, subsequently for that metal and copper ore. In these mines is the celebrated "Hot Lode," the water issuing from which is 114 deg.; so hot indeed is the atmosphere that the men work perfectly naked: cold water is brought from the surface to pour over them, but even then they

can stand in the end but a short time at once. This part of the mine is very rich: from the shafts communicating with the steam rises in so dense a body as to look like smoke from a chimney. The agents of the mine obligingly favoured us with the following statistics, which we believe are as nearly as possible correct, though the number of persons employed and the supplies vary, as a matter of course, very considerably at different periods; we could only obtain particulars from the time at which the present proprietors took possession. The first sale was in May, 1851.

Amount of Ores sold in Money Value.	
1851 .....	£25,535 9 1
1852 .....	25,254 6 1
1853 .....	63,084 7 10
1854 .....	54,253 7 5
1855 .....	58,418 8 7
1856 .....	51,981 9 6
1857 .....	48,647 18 1
1858, to Oct. ....	37,435 9 0 = £395,627 15 7
Deduct lord's dues, rates, and taxes .....	20,000 0 0
Leaving .....	£375,627 15 7

Dividends .....	£25,000 0 0
Present market value .....	32,000 0 0 = £57,000 0 0
Outlay, 400 shares at 40s. ....	16,000 0 0

Profit in seven years .....	
£41,000 0 0	

Consumption of Materials, Labour, &c., Annually.	
Coals .....	£12,000 0 0
Candles .....	500 0 0
Timber .....	700 0 0
Gunpowder and fass .....	800 0 0
Iron and brass casting chains, &c. ....	800 0 0
Hemp ropes, &c. ....	1,000 0 0
Machinery .....	600 0 0
Labour and cartage .....	27,000 0 0
Horse hire, cartage by rail, & quad .....	1,000 0 0
Sundries .....	700 0 0 = £45,200 0 0

\* To this item should be fairly added the sum of 10,000l., said to be unnecessarily paid to the neighbouring mines as water charge.

On such data as these we could but come to the conclusion that Cornish mining does not only contribute to the general wealth of Great Britain, but that it is a most important section of it; that without it the Cornish gentry and landowners would be impoverished to an extent incalculable; that the benefits of the dues of the Cornish mines are extended to landowners of the county resident in all parts, and amount in the aggregate to an enormous sum, in procuring which they do not incur the slightest risk or expense, and is, therefore, clear gain to the country at large; that commerce and shipping thrive to a vast extent by mining enterprise; that the supplies consumed in the mines are derived from all parts, and must necessarily yield an equally divisional profit to each person engaged in them; that British mines tend to civilisation, comfort, and happiness, and that without their presence England would lose her power and prestige amongst nations; and Cornwall, instead of her present active, teeming population, and highly prosperous state, would have been a howling wilderness and a desert, her sons barbarians, and her gentry paupers,—in short, that the mines of England are her main stay and safeguard, and that in this glorious category the mines of Cornwall form a principal and leading feature, and as such should be cherished and encouraged. The mines and miners deserve it, and God grant they may receive it.

N.B.—The estimates are rather under than over the real state, as fewer persons are employed than formerly.

## FOREIGN MINES.

COPIAPO MINING COMPANY.—Chico Mine, Oct. 31: Estimated produce.	
Quantity.	Value.
First class sulphurets .. Qrs. 600	27-0 .....
Second class ditto .. " 300	13-0 .....
First class carbonates .. " 300	23-0 .....
Second class ditto .. " 200	12-5 .....
Total .....	£484-37

In the 20, west of Harman's shaft, the lode is 18 in. wide, in 13 per cent. dark sulphurets. The 30, west of Harman's shaft, is unproductive. In the 40 and 50 the lodes are 20 in. wide, 27 per cent. dark sulphurets. The cross vein advised in my last has become poor at bottom of the chifton lode, but upon communicating it with the 50 I will drive back west on the main south lode, under the chifton, to intersect it. In the 60, at bottom of Price's shaft, in the cross-cut north, I have passed through a small lode, unproductive. In the cross-cut north I have not as yet met with any lode. Western Belt: The 40 west is unproductive. Burrows still continue poor.—G. O'BRIEN.

DECEMBER, Oct. 15: In the north chifton the lode is 2 ft. wide; no alteration whatever since last reported, producing about 2 tons of 17 to 20 per cent. ore per fm. In the south chifton the lode is 1½ ft. wide, producing about 2 tons of 22 and 16 per cent. ore per fm. In the bottom and driving south the lode is 2 ft. wide; it is improving a little, and will produce about 1½ ton of 16 and 22 per cent. ore per fm. In the slopes in bottom of the 20 the lode is 2 ft. wide, still very good, yielding about 2 tons of 17 and 23 per cent. ore per fm. In the slopes in back of the 10 the lode is 2 ft. wide, looking much the same as when last reported, producing fully 2 tons of 17 and 22 per cent. ore per fm. I am expecting to cut the lode every week in the cross-cut, and then hope to give you a better report.—S. UREN.

UNITED MEXICAN MINING ASSOCIATION.—Guanajuato, Nov. 13: Jesus Maria y Jose: There is now only wanting for the completion of the shaft a reservoir for water, which is in progress, and will be finished during the present month; until then the works by day miners cannot be carried on with the same facilities as afterwards, and since my communication of Oct. 27 no change worthy of note has occurred in this part of the mine, which has produced in the last fortnight 950 cartas, all of the best quality. The extraction by buxons is as enumerated in last report, but the amount has increased, and the last two sales have produced £5704—half to the credit of the mine. Notwithstanding the extra expense of sinking the shaft, the mine continues to give fair profit. In La Trinidad there is nothing new.

LUSITANIAN.—Thomas Chegwinn, Dec. 7: Palhal Mine, Basto's Lode: The ground at Taylor's engine-shaft, sinking below the 18, is of the same quality as for some time past. The ground in the 38 cross-cut, driving south of Taylor's engine-shaft, is the same as for the last ten days. The lode in the 38, driving west of Taylor's engine-shaft, is 3 ft. wide, worth 1 ton of ore per fathom. The lode in the 38, driving east of the engine-shaft, is 3½ ft. wide, worth 2½ tons per fathom. The lode in the rise above the 28, west of Taylor's engine-shaft, is 2 ft. wide, worth 1½ ton per fathom. The lode in Ferreira's shaft, sinking below the 28, is 2½ ft. wide, worth 2 tons per fathom. The lode in the 28, driving east of Taylor's engine-shaft, on the counter lode, is 1 ft. wide, composed of munda and quartz: we are thinking to open a few fathoms on this lode, to see what it is made of. The lode at River shaft, sinking below the 28, is 1 ft. wide, composed of quartz and a branch of flookan. The lode in the 28, driving east of River shaft, is 2½ ft. wide, worth 2 tons per fathom. The lode in the 8, driving east of River shaft, is 5 ft. wide, composed of quartz, with a branch on the north side worth 1 ton per fathom. The lode in the adit level, driving east of Pinto's shaft, is 1 ft. wide, composed of flookan and spots of lead. The lode in the adit level, driving west of the slide lode, is 1½ ft. wide, containing good stones of ore. The lode in the adit level, driving west of the Carga, is still small. The ground at Perez shaft continues to be of good quality. Alva's winze is suspended for the present, in consequence of an increase of water. The lode in the 18 (No. 1), and west of Butler's winze, is 9 in. wide, worth ¾ ton per fathom. The stop No. 2 is suspended, the ore ground being all taken away. The lode in stop No. 3, in back of the 28, west of Fontoura's winze, is 1½ ft. wide, worth 1½ ton per fm. The lode in the winze is 1½ ft. wide, worth 1½ ton per fathom. The lode in the winze below the 28, west of Fontoura's winze, to come down on the rise above the 28, is 1½ ft. wide, worth 2½ tons per fm.—Mill Lode: The lode in the 18, driving east of the cross-cut, is 6 in. wide, composed of flookan and a small branch of ore, but not enough to value. The lode in the 18, driving west of the cross-cut, is 10 in. wide, worth ¾ ton per fathom. The lode in the slopes in back of the 18, west of cross-cut, is 1 ft. wide, worth 1½ ton per fathom of lead and copper mixed.—Oak Shaft: We are clearing up this shaft, putting in pantheuse, &c., preparatory to sinking. The ground in the 20 cross-cut, driving south of Oak shaft, is still very hard.—Carvalho: The lode in the new adit level, driving south on the lead lode, is 2 ft. wide, composed of quartz, blende, and spots of lead. The lode in the adit level, driving west on Alva's lode, is 2½ ft. wide, composed of rusty quartz and munda.

NEW GRAND DUCHY OF BADEN.—S. Richards, Dec. 13: At Schindler Mine, at the engine-shaft we are still carrying down 4 ft. of the ore part of the lode, which is worth about 30l. per fathom. In the 34 south the lode is without change, being about 15 in. wide, with spots and strings of ore; in the same level, driving north, the lode at present is small, producing occasionally rich stones of silver-lead ore. The stopes in back of this level are worth about 23l. per fathom. At Teufelsdruff Mine, in Louisiana level the lode continues about the same as for some time, being worth on the average 8 cwt. of ore per fathom. The stopes in Wilhelm's level are worth 5 cwt. per fathom, and the stopes in Frederick's level are worth 7 cwt. per fathom.

THE CENTRAL AMERICAN MINING COMPANY.—Alotepaque, Oct. 30: San Pan Pantaleon, San Vincente: Six men have driven the end east in this level 12 varas, 4 varas at 89, and 8 varas at 88 per vara. The lode in this distance has been rather small, worth for silver ore 40l. per fm. During the last 2 or 3 varas driving the ore branch is increased in size, and is now worth 50l. per fm. The end west in the same level has been advanced 18½ varas, by six men, at 87 per vara. Here, although large, the lode is not so good for some distance, in the present end, however, it presents a very encouraging appearance, and will, no doubt, soon be remunerative. This end will reach No. 2 cross lode in course of the coming month. It is now evident that the vein on which this level was formerly driven is a distinct and parallel one to that of San Pantaleon main lode. In No. 2 stop, San Domingo level, the southern vein falls in or forms a junction with the main lode, where it is accompanied with a rich branch of solid ore, 5 in. wide, worth at least 100l. per fm.—San Domingo: The lode in No. 1 stop, in back of this level, is worth for silver ore 90l. per fm. In No. 2 stop, adjoining the before-mentioned, and in back of same level, the lode is worth for silver ore 180l. per fm. This stop was resumed on Thursday of last week by three men and three boys. There has been another stop started in the back of this level since Monday last, called No. 3 stop, it extends from No. 2 stop east as far as No. 2 winze from the level below (Dolores); there ore branch is small, in places worth for silver ore from 40l. to 46l. per fm.; worked by three men and three boys. The ground in each is rather hard, as also the ore branch, so that with the great care necessary in breaking and saving this very rich metal for transmission to England, and the inexperience of the natives with mining (all our best native miners being engaged driving the different ends), our progress here is naturally slow.—Basta's Stop, in back of Dolores' level: The lode here is about 2 ft. wide, the ore branch being 5 in. in width, producing 6 cwt. of rich ore per fm. In Triguero's stop, adjoining Basta's, and in back of same level, the lode is 18 in. wide, and has produced some good saving work. These two stopes were in operation up to Saturday last, worked

by six men and four boys. During this week they have been suspended, the men being placed on different stopes in the level above (San Domingo), in order to extract the quantity of first-class ore required by the end of this month. The quantity of rich ore raised in the month was upwards of 27 tons, estimated to be worth 1550l., and the cost of the whole concern in the same period was under 500l. We have been extremely busy in getting ready and dispatching cargoes to the coast, and during the last month 307 bags more of superior ore, weighing nearly 21 tons, have left the mines en route for England. The value of this lot will be about 1600l.; 73 bags of equal quality are still in the storehouse, and we are actively engaged in preparations for making further consignments. A letter from Belzon states that there were 272 bags of ore there, and 300 at Yabel ready for shipment.

WILDBERG.—Z. Walls, Dec. 11: We have taken out of the mine, dressed, and sampled to the smelter-works during the past month 190 tons 10½ cwt. of silver-lead ore, at an average of 32 6-10 cwt. produce for lead, and 21½ cwt. of silver per ton of metal. The underground work is proceeding satisfactorily, and the bargains and tribute pitches generally are looking well. The deep adit level driving east from the western mine is communicated to the drive west from Michael's shaft. The middle level in the Nos. 1, 2, and 3 sinks is also complete, and as soon as the end driving west from the 10 latcher cross-cut reaches the No. 3 sink we shall be in a position to put 20 more men to work on ore ground. The sink going down below the deep adit, on the Erbsfeigergang, is in a good lode, and the sinking is being pushed on as fast as possible, to communicate to the 10 latcher level; we can then stop to great advantage.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.—Melbourne: Oct. 15: The quartz crushing operations at Clunes were going on very satisfactorily, during the month of September (five weeks) the quantity of quartz crushed was 1674 tons yielding 214 oz. 9 dwts. of gold. The amount received for crushing the same was 4155l. 15s. 6d.; expenditure, 1927l. 6s. 10d.; showing a profit of 2228l. 8s. 10d. on the month's working. During the first three weeks of this period the yield of gold was a little above 1 oz. to the ton; the last fortnight it improved to 1 oz. 11 dwts. nearly. The quantity of gold melted during the month of September was 34,375 ozs., and for the nine months 339,341 ozs. The Clunes Mining Company's engine would shortly be at work, and they will then be able to raise quartz from the deeper levels. They have had a good deal of difficulty to contend with lately, owing to heavy expenses and small returns of gold, and for some weeks were unable to pay dividends. This state of things, the resident director writes, he hopes is at an end.—[A remittance has been received from the resident director of 1500l., which completes the 5000l. for the dividend next month.]

ENGLISH AND AUSTRALIAN COPPER COMPANY.—Adelaide, Oct. 9: The manager had eight furnaces at work, and hoped soon to have ten. The reduction in wages had been well hoped for. Mr. Hamilton was in hopes of a still further reduction, should the over supply of labour still continue. The cost of coal on hand was about 3500 tons, and wood 1400 tons. A shipment of about 56 tons of copper had been made to England, and a further quantity expected.

ADELAIDE LAND AND GOLD COMPANY.—The liquidators are in receipt of despatches from the agent at Adelaide, dated Oct. 9. The sale of the company's lands were progressing slowly, but satisfactorily as to price. A further remittance of 500l. is to hand, making upwards of 2000l. secured since the dividend was paid in July last.

KAPUNDA MINING COMPANY.—Oct. 11: The mine and smelting works are progressing very favourably; the yield of ore for September was 330 tons, of between 19 and 20 per cent. average, produce equal to about 65 tons of pure copper. The make of copper at the smelting works averaged about 16 tons weekly, with every prospect of that rate being maintained. Fuel was abundant, and obtained at rather lower rates; the rates of wages, it was hoped, might shortly be somewhat reduced. Freight, at 15s. per ton, had been secured for 250 tons of copper, and several parcels had been shipped.

BON ACCORD MINING COMPANY.—Adelaide, Oct. 11: The operations of the month have continued to be more or less of a preliminary and explanatory nature, and of a special return, the delay being occasioned by the unexpected appearance of water, preventing depth being obtained upon which my hope of a speedy return rested. Our operations, in consequence, have been chiefly directed to the opening of ground above water level; that will most conduce to efficient and economical working when the lodes of ore are laid bare.

THE WORTHING MINING COMPANY.—Adelaide, Oct. 4: Driven the 12 in. level, by six men, north of Wotton's engine-shaft, 4 fms. 5 ft. 9 in. ground worth 13s. 13s. We have raised some rich sulphurets ore the last 2 fms. driving, lode poor. Driven the 10 in. level, south of Hocking's shaft during the month, by six men, 6 fms. 1 ft. 1 in., ground worth 11l. per fm., which proves to be at this level a dead piece of ground. After this there remain 2 fms. more to drive to meet the point of communication with the 12. On Tuesday last, I have great pleasure in saying, by driving the above-mentioned 2 fms. with difficulty, and rising and sinking about 10 ft. for want of air, the communication is now forwarded, giving free ventilation to the whole mine, on the main lode and branches thereof. Driven the 10, north of Hocking's shaft, by six men, on the course of the lode, 9 fms. 6 ft. 1 in., ground worth from 9l. to 9l. 10s. per fm.; the back of which since sinking with the 12 I have set on tribute at 7s. 6d. in 1l., still leaving 10 fms. of good tribute ground to the south towards Hocking's shaft. On Saturday last I set a pitch to two men, south of Hocking's level, at 7s. 6d. in 1l. The men that are now clearing out foundation for our new engine-house have engaged to take Winnin old pitch, on Boundary lode, at 10s. in 1l., on the completion of their present contract. I fear that we shall have to go deeper with the foundation than we first anticipated, and that now we are in clay kind of ground, under which fine sand is making its appearance. I have taken six men that were in the 12, and put them to sink Leg's new engine-shaft, situate about 20 fms. north of Hocking's; set at 3l. per fm. to sink to fast ground or rock. The shaft is 11 feet long, 9 feet wide in the engine end, and 7 feet wide in the whin end, within timber. The quantity of ore raised during the month, 19 tons of 22 cwt. to the ton, of good average produce, for particulars of which I beg to refer you to the cost-sheet, where the several quantities and produce will be shown. According to the assay given in the colony I cannot help but thinking that we have not value for the ores with so much malleable as some of our parcels contain. We have driven underground tribute pitches, two taken at 7s. 6d. in 1l., and three at 10s. in 1l., with three surface parcels of tribute pits in dressing the levelling, with old burrows; all two at 10s. in 1l., and one at 13s. in 1l. I have great pleasure in saying, after making trial by a short cross-cut from the 12 to prove any side lode, there will be three or four pitches more that will readily let in the back of the 12, at a less tribute than any before mentioned. I have now to mark out the limit of each, and set value as to tribute. The walls of cellar, material house, and fitting-up shop are complete, and partly roofed; this will prove a very great convenience when finished. Quantity of work on hand, say, 300 fms. I am glad to hear that the contract is taken to deliver the new engine, and hope in six months to have the pleasure of seeing the same at work on Leg's new engine-shaft, with successful results, by enabling us to mine with good profits, of which I have not the least doubt.

Extract of a letter dated Oct. 7: In driving east there are two branches of rich black ore, similar to those we commenced driving on east, now taking a north and south course, still there is some water ahead. I have ordered the men to make another cut east. I have let the backs of the 12 to seven men, at 5s. in 1l., until the third Friday in Nov., which is as good as three two-men pitches, and having one to dress the ore. We have gone through 3 ft. of sand in the shaft, and now have rock in the west end, 15 ft. from the bottom of the 10. There are three more good pitch in whin-shaft and Hocking's shaft, both at 7s. 6d. in 1l. We have now as good as nine two-men pitches let underground.

CLARENDON CONSOLIDATED.—Josiah Martin, Nov. 23: Stamford Hill: The engine-shaft has been sunk about 7 ft. below the 58; the lode is split in two parts by a course of porphyry. The south one is about 18 in. wide, composed of green carbonate and prair, with some small patches of dark porphyry; the north or main part is about 2 ft. wide, having a more kindly appearance than the south, composed of green carbonate and small veins of rich yellow copper ore, with prair, and underlying a little more than the south part; I think they will form two distinct lodes in depth. We have had very heavy rain, but it does not appear to have increased the water in the shaft as yet. The 46 stop, on the cross-course, is without alteration. In the 46, west of engine-shaft, on the north lode, we have little improvement; the lode is 2 ft. wide, composed of green carbonate and prair, with small veins of yellow copper ore, and letting out some water, which is not an unkindly appearance. The masons have completed building the loading for the engine; I have put the boiler in its place, and have now begun to build the chimney. Our surface work has been brought to a standstill for the last week, on account of the heavy rain we have had; but so soon as the weather will allow us we shall commence at once to get the building up, and set the engine to work, which I hope will be done in proper time. The damage done to our property by the storm is very little, a few native miners' huts only having been blown down.

ACADIAN CHARCOAL IRON COMPANY.—E. A. Jones, manager: Londonderry, Nova Scotia, Nov. 30: The company may congratulate themselves on the appearance of things at Londonderry. The deposit of ore turning out so well at Martin's Brook has entirely changed the aspect of the works. If these works be now abandoned, it will be at the very time when they are in a position to become remunerative.

EAST INDIA COAL COMPANY.—Gopenauthpore: Owing to the Doorgah Poojah, we have had only 10 working days: 6078 maunds of coal have been raised. I have commenced making bricks and tiles at this place for erecting coolies' houses.—Toposi: We have had nine working days, in which time 7670 maunds of coal have been raised. A new gin has been put up to raise coal. Bricks and tiles are being made by coolies' huts. Coal-cutters and other labourers are coming in daily to this colliery. The engine works daily, and effectually keeps down the water.—Kumcoria: No work in progress here.—Bassah: The sinking of the second shaft at this place is down to the depth of 25 ft. Bricks and tiles are being made here to build engine and boiler-houses for the second engine. The pipes, &c., for the Gwynne pump have arrived.—Kosta: During the late Poojah, I went on a tour of inspection to this place as well as Kussah. Large numbers of coal-cutters, and other workmen, have come in, and the dense jungle around the quarry is being rapidly cleared. During the past fortnight we have had 10 working days, in which time 7960 maunds of coal have been raised.—Rusash, consisting of 300 beegahs of land, is situated on the north bank of the Adjal River, about 12 miles from Toposi; it is a large open plain, and in a high locality. I saw some shale which has come up to a depth of 30 ft. while sinking a well, and from its appearance, I have not the least doubt we shall find coal. There are many large villages in the vicinity, and labour is plentiful.—Tumkooley: No work in progress here. This place is about 25 miles from Toposi, situated in a dense jungle of saw trees. Should coal be found here, it will be very convenient to supply the railway, from which it is only 12 miles distant.—Dhusant: The quarry contractor is rapidly taking out the water here by means of tarah and sewines. In a short time he will commence raising coal. I am also sinking a shaft for erecting permanent huts for our coolies.—General Remarks: The bricks and tiles for erecting permanent huts for our coolies are being made. The weather has been delightfully cool, and very favourable for all out-door work. At all our collieries 21,708 maunds of coal have been raised during the last fortnight. By next report we shall be able to show a considerable increase in our present quantity. The total quantity of coal raised during the whole month of October is 41,205 maunds.—J. F. HARRISON; C. S. STAIG.



## BRITISH MINES

**CROWNSDALE.**—J. Richards, Dec. 15: The lode in the pitch in the bottom of the 3 is still worth 4 tons of ore per fathom. The lode in the pitch in the back of the 20, in the south part of the lode, is worth 3 tons of ore per fm. The shallow adit level cross-cut north is suspended for the present, and the men removed to drive a cross-cut south in the 10, for intersection of the south part of the lode, and when met with I have every reason to believe it will be found equally productive to that in the pitch.

**FRANK HILLS**, P. Nicholas J. Cornish, Dec. 15: We beg to bid you the report of our cutting, which took place on Saturday, 2nd, -Tutark:- The 94 to drive south by six men, 5 fms. stent, at 85s. per fm.; the lode in this end is 2 ft. wide, producing a little ore, but not rich. The cross-cut west in the 94 north to drive by four men, 1 fm., or get under Quintrail's wing, at 120s. per fm.; as soon as this stent is completed we will make a cross-cut to the 94 south, which will be 120 fms. long, and will hold 145 men, 1 fm. in the end in which is 1 ft. wide, producing saving work. A cross-cut to drive east from the 72 south by four men, 4 fms., or cut a lode, at 37s. per fm. To rise in the back from the 72 north, on the west lode, by four men, for the month, at 55s. per fm.; the lode at this point is 2 1/2 ft. wide, yielding saving work. The 60 south to drive by four men, for one month, at 55s. per fm.; the lode in this end is 1 1/2 ft. wide, producing saving work. The 15 north to drive by two men, for one month, at 55s. per fm.; the lode in this end

and producing good stones of tin ore, very much improved since last reported on. The 236, east of the 234, is a small, but very good, tin mine, entering the bunch of tin that we are sinking on in the bottom of the 236. The winze sinking to the bottom of the 236, east of Borslae's engine-shaft, on the main lode, is 4 ft. wide, and worth about 1600. per fathom for the length of the winze, which is 10 ft. The 254, and 264, driving west of Boulder's shaft, is much the same as last reported on. The 254, from the 256, is 2 ft. wide, and worth about 1200. per fathom. The 264, from the 256, is 2 ft. wide, and worth from 150. to 200. per fathom. Powder House shaft, sinking below the 40, on Trueman's lode, is 2 feet wide, and yielding good stones of tin ore. The ground in the 118, driving north of Wolf's shaft in search of Trueman's lode, still shows indications of the lode being further north. I expect to sink and in full course of working. I hope next week to be able to give you a more detailed report.



**GWYDYR PARK CONSOLS.**—H. Rawson, Dec. 16: In sinking below the shallow adit we have broken down the lode, and it is 12 in. wide, containing some stringers of lead about 2 or 3 inches wide, solid ore, and the other part of the lode is mixed with lead and spar.

**HARWOOD.**—J. Race: There is every appearance of cutting a vein soon in the level at Scar Head, the lode is dipping, and the backs or strings crossing have more spar. The shaft to No. 2 vein is not holed yet, but I think two or three days will do it. Other parts of the mine about the same.

**HAWKMOOR.**—J. Richards, Dec. 13: At the engine-shaft, sinking below the 60, the south wall of the lode appears to be very regular, and of a promising character to produce ore. The lode in the rise in the 50 is worth 1½ ton per fathom, and is opening out some good tribute ground. In the 40 west I have commenced a winze over the rise in the 50; the lode is producing some good dressing work, and has every appearance of further improvement. In the 40 east we have holed the rise and winze this day, and we have a fine piece of lode to take down this week; after this is done I shall be able to give you full particulars of its size and value. I have 20 tons of ore weighed off, and hope to have 30 tons more against the sampling.

**HERODSFOT.**—J. Wolfson, Dec. 16: In the 127 the lode in the end is about 2 ft. wide, and worth 7 cwt. of lead per fathom. In the 117 end the lode is 18 in. wide, and worth 15 cwt. of ore per fathom. In the 106 the lode is in this level, producing on an average 8 cwt. of ore per fathom. In the 106 the lode has been somewhat disordered by a slide, but it is now regular, and will yield 6 cwt. of ore per fathom; there are five steps in the back of this level, yielding on an average ½ ton of ore per fathom. The lode in the 82 is at present poor, but yields saving work for the stamps. On the whole, the mine is looking quite as well as for some time past, and together with all the machinery, is in good working condition. The 85 tons of ore sold on Nov. 27 were shipped yesterday, and weighed as follows:

**HINGTON DOWN CONSOLS.**—W. Richards, Dec. 15: The lode in the 110, west of Morris's shaft, is equally large and promising. In this level, east of shaft, there is no change to notice. The lode in the 100, west of shaft, is not quite so productive as last reported, but is now worth 5 tons of ore per fathom, and promising to improve. Other points are without change.

**HOLMBUSH.**—N. Seacombe, Dec. 14: The lode in the 145, west of cross-cut, is not producing any ore to value; the steps in the bottom of this level are yielding 1½ ton of ore per fathom. The lode in the winze sinking in the bottom of the 145, west of cross-cut, is producing 2½ tons per fathom for the length of the winze (12 feet). The lode in the 160, east of the diagonal, is producing full 1½ ton of ore per fathom; the steps in the back of this level are yielding from 1 to 2 tons of ore per fathom. The rise in the back of the 132, on the lode level, is communicated with the 120; a good ventilation is effected, and the ground is set on tribute. A cross-cut is set to drive north from the end driven west at the 124 at Wall's shaft (about 10 fathoms behind the end), to ascertain if there be any more lode in that direction. I see no change of importance in any other part of the mine.

**KELLY BRAY.**—S. James, Dec. 11: There is no change in the 135 east since last reported on; the lode is about 1 ft. wide, poor at present. The lode in the steps in the back of the 70 west, both east and west of the winze, are worth 14½ per fathom. We have commenced another cross-cut to drive south at the 55, where we hope to meet with the same shoot of ore that is now in the 45 east, when the lode is intersected, or shortly after, as the above-named shoot of ore is dipping west, the cross-cut will be about 4½ fms. if the underlie of the lode is the same as it is in the level above. The ground is favourable for exploring, set at 6½ per fathom. The lode in the 45 east is 4½ ft. wide, and worth about 30½ per fathom. The ground in the cross-cut driving south about 2 fms. in advance of the above named end is improved, and showing indications that the lode is not far distant. There is no alteration in the tribute department since my last communication.—Eastern Mine: Watson's engine-shaft has sunk 7 fms. 2 ft. below the 50 during the past week; there have been some hard fms. of capel met with in the shaft, which has impeded our progress a little, but we hope they will be of short duration. The lode in the 40, driving east, is 1½ ft. wide, composed of quartz, fluor-spar, strong mull, and spots of copper ore, and is very likely to improve. The lode, west of shaft, is very much improved, and now becomes a soft congenial killas for the production of copper ore. The south branch at the same level, driving east, is 1 ft. wide, composed of mull, blende, and spots of ore. We are dressing ore for another sampling with all possible dispatch, and are likely to have the largest quantity of ore for December month ever sampled in this mine before.

**LACKAMORE.**—Dec. 13: The stone over the 34 has improved during the past fortnight, making good branches or ribs of ore, and the lode is still wide. Hitherto we have worked this place as a rise and stone, which we now find (on account of the great width of the lode) inconvenient. I have, therefore, put a party to run up a small rise on the spot of the lode, which I think will greatly facilitate the work and ventilate the place. We are pushing on the 34 and east through an immense lode, and will, so far as we are paying 3½ per fathom. The stone over the 34 west, on the south lode, continues very poor. I have taken four of the men from it to work the rise above named, and have only two going on in that stone. The pitches, except one, are rather poor, but I hope they will improve. In the adit end, west of Brian's, we have driven the lode for a length of 14 ft., and are not yet through the lode; we have had some small pieces of ore in passing, although not enough to pay for working, yet it shows the lode to be still living. This is about 40 fms. west of Brian's shaft. The other parts continue just the same. We have about 30 tons of ore to pile. The machinery is in good working order, and as far as the general working of the mine is concerned everything is going on well.

**LADY BERTHA.**—J. Metherell, Dec. 15: The 41, east and west, is very spare for driving. We have passed through the lode 11 ft., and in the north part of the same it is very abundant. The lode in each end is 2 ft. wide, and is very rich. I find the further from the cross-course I have no doubt it will be much more valuable. I find this morning the lode in the 39 is not so good—worth now about 1 ton per fathom, but the lode is very promising. We have a splendid improvement in the 30 east, the lode will average 1½ ft. wide, worth full 3 tons of good ore per fathom, and still opening wide going east. Gray's steps, in back of the same level, west of Robin's winze, is worth 1½ ton of rich ore per fathom. We have not taken down the lode in Carter's winze since last report, but in cutting into the wall in the bottom it looked splendid. I think we shall commence taking down the lode some time to-morrow. We will drive up the shaft. Our pitches are much as usual. On the whole, I think our mine is improved, because the improvements in the 30 east are of importance.

**LADY BERTHA.**—Jas. Metherell, Dec. 16: I advise you accordingly respecting the lode in the winze taking down, which is now worth for the length 10 tons, or 80½ per fathom, splendid.

**LYWERNOG UNITED (Cardiganshire).**—John Hughes, Dec. 13: Since my last report we have placed a line of rods from the quarry shaft to the boundary shaft, which shaft has been sunk 10 fms.; from this depth we drove a cross-cut north for 2 fms.; when the lode was intersected it appeared a kindly looking one, being intermixed throughout with lead ore, blende, and a nice looking gossan. We have set four men to drive on the course of the lode, and the eastern end is improving in appearance. At the Lywernog Old Mine, we are driving from the 15 a cross-cut north to intersect the main lode; we have driven 10 fms., cutting through the lode 11 ft. of ore on the way, and will drive the half fathom of the lode, which we have cut no less than five of these strings or rods, which were much larger than those seen before, indicating our near approach to the lode. We are also stopping in a winze in this level; the ground in this place yields at least 25 cwt. of lead ore per fathom. A short distance to the west, where the lode seen at surface in the wheel-pit forms a junction with the lode worked upon in this level, we have cut some good stones of ore, yielding 10 cwt. to the ton. At the eastern shaft we have sunk in ore 4 fms. below the adit, but the water being troublesome, and having no machinery on this shaft, we must discontinue sinking here for the present. We have two bargains on tribute, one at the Big Mine and the other at the Lywernog. Their stuff is being brought to the crusher, which is expected to yield several tons of ore.

**MOLLAND.**—T. Bennett, Dec. 15: The lode in the 32 west is 1½ ft. wide, producing a few stones of ore. In the same level east the lode is still very large, and producing nearly the same quantity of ore as last week—1½ ton per fathom. We have seen nothing of the hard floor in this end for some time; the lode being so large and strong has, I believe, destroyed it going east. The lode in the 20 east is poor; we have not yet got far enough into the change of ground to see what influence it will have upon the lode. The steps in the back of this level are poor at present; we intend to try another part of the lode, where we hope it will prove to be more productive. The carriers have commenced taking ore to Barnstaple.

**NETHER HEARTH.**—Wm. Vipond, Dec. 10: The stone on the vein has improved this week, it is now worth 8 cwt. of lead ore per fathom. The Sun string is yielding about as before, 10 cwt. per fathom. If the carrier keeps open we shall have 8 tons of ore ready next week, samples of which are sent to-day. Two men have taken an ore bargain in the new level—the vein behind the miners' shop.

**NEW TRELEIGH.**—J. Prince, Dec. 15: The lode in Carr's engine-shaft continues large, but a hard floor of quartz has driven the south wall of the shaft a part of it for about 5 feet in length in both ends of the shaft; however, it is quite as productive as at any former period, and I have not the least fear of a permanent deterioration having taken place, on the contrary, I believe it will improve under the floor of quartz. The lode in the 60 east is not quite so large as it was, but there is a good branch of ore up and down the end, leaving a back that will work on a moderate tribute. No lode has been taken down in the western end since last reported upon, the value of which I have since ascertained by an assay of a sample from a ton of ore to be 12½ per fathom. We have put in a stone in the bottom of this level, west from the engine-shaft, for about 3 fms. in length, which is about 20 inches wide, and worth from 15 to 25 per fathom. In the 50 west we are cross-cutting north, ground hard, but getting wet. The lode in the winze sinking in the 40 is 2 feet wide, consisting of blende, mull, and copper ore, saving work, with every prospect of an improvement in sinking. No alteration has taken place in the 40 cross-cut. We sampled yesterday two parcels of ore—No. 1, computed 39 tons; and No. 2, 12 tons; the produce of both of which I will forward by post.

**NEW WHEAL VOR.**—J. Vivian, N. Thomas, Dec. 13: Great North Lode: Harriet engine-shaft is sunk 10 ft. below the 45; the lode in the bottom of the shaft is 6 ft. wide, producing a little tin. We shall suspend sinking this shaft about four weeks, in order to fix main rods, plunger-lift, and make everything complete for sinking below the level referred to. The lode in the 45, driving east, is large, producing tin; we shall drive this level as fast as possible, to get under the run of promising ground now driving through the 30. It will not be convenient to drive the 45 west until the shaftmen have completed the pitwork. The 30 is driven 34 fms. east of the engine-shaft, and communicated with a winze sunk below the 15; in driving the last 12 fms. the lode has been of great width, and of an exceedingly favourable appearance for making large deposits of tin at a greater depth.—Wheal Bramble: Lizzie engine-shaft is sunk 3 fms. below the 10; the lode in the bottom of the shaft is worth for its length 30½ per fathom; we hope to get this shaft to the 20 in two months. The lode in the 10, driving east, is worth 10½ per fathom; the lode in the same level, driving west, is worth 16½ per fathom; the lode in the steps in back of this level is worth 12½ per fathom. The lode in the steps in the bottom of the adit, west of engine-shaft, is worth 12½ per fathom. The lode in the adit level, driving east, is 18 in. wide, saving work for tin, and of a more favourable appearance than for some time past. You can see by the foregoing that the prospects in this part of the property held out by us at the last meeting of adventurers have been fully realised.—Penzance: The engine-shaft and horizontal rods are being prepared for sinking this mine, and which will be done by the engine erected at Wheal Bramble.—Park-an-Step: The lode in the adit level, driving east, is 3 ft. wide, producing a little tin.—East Wheel Metal: The lode in the adit level, driving east, is 5 ft. wide, producing saving work. All the machinery on the mine continues to work remarkably well.

**NORTH BASSET.**—T. Glanville, Dec. 15: In the 132, driving west of the flat-rod shaft, the lode is 3 feet wide, composed of spar, intermixed with copper ore. In the 72, west of Grace's shaft, the lode is yielding 1 ton of copper ore per fathom. All other parts of the mine are as usual. We sold yesterday tin ore to the amount of 208½ lbs.

**NORTH FRANCES.**—J. Moyle, Dec. 15: Eales's shaft is now down 13 fms. below the 60; the lode is 2½ ft. wide, composed of spar and peach. On or about the 1st of next month we expect to drive on the course of the lode in the 72. In the 36, driving west of Eales's, by six men, at 3½ lbs. per fathom, the lode is 2 feet wide, composed of soft spar, peach, and prlan, and is of a very promising appearance for copper ore, and the ground is favourable for driving.

**NORTH LAXEY.**—H. Bows, Dec. 14: We have intersected the lode in the 27; it is about 3 ft. wide, and is present poor; just in this situation I did not expect much other. In opening out this new level north and south I look with confidence for success; at any rate, there is every warrant for it, judging from the 12, especially southward. The lode in the 12 and south, when I saw it yesterday, was about 1 ft. wide, composed of gossan, a small quantity of black jack, and lumps of lead from 7 to 14 lbs. in weight, solid; the stratum also is of a better character than we have before seen it—much more vertical, and interspersed with strings of ore.

**NORTH WHEAL ROBEIT.**—J. Richards, Dec. 17: Murchison's Engine-shaft: The lode in the 62 west, east of Scoble's cross-cut, on the south part of the lode, is 2 feet wide, containing quartz, capel, mull, and a little ore; this drive is suspended for the present, and the men removed to drive west on the north part of the lode, which is intended to be pushed on as fast as the nature of the work will admit, for the twofold purpose of getting in under the trial shaft, and of pumping the water with the water-wheel. In the 52 west, east of Gorman's cross-cut, on the south part of the lode, the lode is 18 in. wide, and produces occasionally good stones of ore. In the 52, west of Gorman's cross-cut, on the middle part of the lode, the lode is 3 ft. wide, composed of capel, mull, quartz, and ore, worth ½ ton per fathom. This part of the lode having taken a more northerly direction is fast approaching the main level, the drive is, therefore, suspended. In the 62 west, on the north part of the lode, the lode is 3 ft. wide, composed principally of quartz, with mull and a little ore. In the 42, east of Carter's cross-cut, on the south part of the lode, the lode is improved, being at present worth 3 tons of ore per fathom. In the 30 cross-cut north the ground is become harder and progress slow. In the 30 cross-cut south the ground is favourable for progress. The trial shaft is down below the 42 fms. level 9 fms. 4 ft.; the lode is 4 ft. wide, containing capel, mull, and occasionally stones of ore. As soon as the shaft is sufficiently deep for the 52 it is intended to cut a small pit, and again resume sinking for the purpose of reaching the 62 as soon as possible, for the object above referred to.—Trial Shaft: In Gorman's winze, sinking below the 42, on the south part of the lode, the lode is still worth 3 tons of ore per fathom for the length of the winze, 9 fms.—South Lode: In the 42 west, the lode is 2½ ft. wide, and is for the present not so good; it is, however, promising, and yields good stones of ore. In the 42 east the lode is improved, and will yield full 1½ ton of good ore per fathom.

**OKEL TOIR.**—W. B. Colton, Dec. 15: In the 65 fathom level the copper lode is cut through against the cross-course, where it is 21 ft. wide; the north part consists principally of mull, to the south of which there is an ore lode, about 6 ft. wide, and on this part we have commenced driving; for the short distance driven the lode has improved, and the quality of the ore is better than in the levels above; there has not yet been sufficient driven on the lode to ascertain its value. In the 50, east of the eastern cross-course, after cutting through the lode for more than 4 fms., without reaching the north wall, we commenced driving on the branch of ore, from 2 to 3 ft. wide, discovered whilst cutting through the lode. The ore breaking from this place, although containing pretty much mull, is of better quality than any yet broken in the mine, with the exception of the 65 fms. level. A pair of men are now engaged in stopping the back of the level, between the end and the cross-course, the ore from which is worth from 3½ to 4½ per fathom. The engine-shaft will be down to the 80 by Christmas. We shipped off a cargo of mull to Swansea the beginning of the month, and a party is also in treaty for a parcel of ore, about 35 tons.

**OLD TOLGUS UNITED.**—G. Reynolds, Dec. 15: The cross-cut at the 42 is extended south 10 fms. 3 ft., and the ground is still very favourable for driving; the shaft is also being forced on below that level with spirit. The south lode, going west at the 32, is 3 ft. wide, and worth 5 tons of copper ore, with a lasting appearance; the lode going east is again improving, being 15 in. wide, producing fine stones of copper ore, and worth 1 ton of blende per fathom. The steps throughout this level are much the same as when last reported. The lode going west at the 32 is at present disordered. The north lode, going east at this point, is not so large as it has been. The new south lode, going west, is 1 ft. wide, producing good stones of copper ore and mull, and has a promising appearance. All the other operations are going on satisfactorily.

**PEDN-AN-DREA.**—Capt. Carpenter, Delbridge, and Thomas, Dec. 11: The lode at the engine-shaft, sinking below the 90, is from 6 to 7 feet wide, at present producing stamping work of low quality. In the 94, west from engine-shaft, on engine lode, the lode is 4 ft. wide, and from the vans taken from the lode this week it is yielding a little more tin, but not in sufficient quantity to value; at this level west, on Skinner's level, the lode is more settled, and producing saving work for tin. In the 55 east, on the new lode, the lode is 4 ft. wide, and letting out a quantity of water; it has a promising appearance, though at present unproductive. The ground is a little more favourable for driving the 55 cross-cut south, and the 40 south, at Bragg's. We sold for November 25 tons 2 cwt. 1 qt. 7 lbs. of black tin, for 1732½ lbs. 16s. 11d., being an average of 69½ per ton.

**PENDEEN CONSOLS.**—W. Eddy, Dec. 11: In the 94 north the lode is about 2 feet wide, and very much improved, and will produce 2 tons of ore per fathom. The 94 south is large, but poor; the lode is composed of mull, quartz, and iron, with spots of copper. In the 82 north we shall begin to take down the lode in the early part of next week. In the 70 north the lode is large, and much water issuing; the ground is not so good for driving. The lode in the north and south ends of No. 2 winze are producing 4 tons of ore per fathom. The other operations are producing just the same quantity as for some time past. I never saw the mine looking so well as at the present time; to all appearances our samplings must very much increase in quantity as well as the quality of the ore. I think our month's ore will be full 50 tons; when crushed I shall get it sampled, and send you the produce.

**PENHALDARVA.**—T. Hodge, Dec. 15: The engine-shaft is now below the 20 about 12 fms. 3 ft. 10 in. level, composed of soft spar, prlan, mull, and good stones of lead, a very promising lode. In the 20, north of engine-shaft, the lode is 15 in. wide, good tribute ground. The rise in back of the 20 south is up about 3 fms., the lode is 9 in. wide, composed of soft spar, lead, blende, and will produce 7 cwt. of the latter per fathom. In the 10, north of engine-shaft, we have a leader on the east side about 2 ft. wide, composed of soft spar, blende, and lead, a kindly lode; here we expect the west side of the lode will be most productive, and in a few days we shall cut it through to know its value. Mibell's winze, sinking below the 10 north, is down 3 fms. 1 ft.; lode 15 in. wide, good tribute ground. In the 10 south no lode has been taken down for the past week. The winze sinking below the 10 south is down 9 ft.; lode 16 in. wide, composed of soft spar, blende, and lead, but not enough to value. The steps north of Trezie's winze will produce 7 cwt. of lead per fathom. The steps south of Trezie's winze will produce 4 cwt. of lead per fathom. The steps north of Vign's winze will produce 4 cwt. of lead per fathom.

**POLBRENN.**—Dec. 14: There is but little alteration to notice since last report, except the ground being much harder in the 32 fms. level east, I continued to sink that shaft, which has been driven by the side of the aplice, but in the last 2 or 3 ft. there has been plenty of hard capel, with good strings of tin in the end; whether it be a part of the lode, or branches making out from it, we can hardly tell, nor can we stay to cut out any more of the side to see, as we want to hasten on to the winze as fast as possible, in order to get away some work for the stamps, which cannot be well done before the winze is holed. There has not been any lode taken down in either of the other ends. The ground continues much the same in Dorcas shaft; the water is a little increased. There are no changes in the lode in the 40, which is steadily keeping the same time, and the springs being up pretty well, and the country full of water, we are benefited by every shower. I think there is every prospect of a good season for stamping. We intend to put the oven for calcining to work on Monday next; soon after that we shall begin to get about some tin.

**QUEEN OF DART.**—P. Hawke, Dec. 15: The following comprises both the tat and tribute work that has been in progress since the 4th inst.:—The 30 east, at the sump-shaft to drive by three men and three boys, at 5½ per fathom. The 20, to the east of Boudry shaft, for the purpose of cutting through the caunter lode at the intersection, by two men and two boys, at 6½ per fathom. The Boudry shaft to sink, which is now 10 fms. 3 ft. below the 20, by six men, at 18½ per fathom. No. 2 to be stopped in the bottom of the 20, which is the lode of Boudry shaft, by two men and two boys, at 3½ per fathom for stopping, and 6s. in 17. For the No. 4 to be stopped in the back of the 20, to the west of Boudry shaft, by four men, at 27½ s. per fathom, and 8s. in 17. For the No. 3 to be stopped in the back of the 30, to the east of sump-shaft, by two men and two boys, at 21½ s. per fathom, and 6s. in 17. For the No. 1 to be stopped in the bottom of the 20, to the east of Boudry shaft, towards the caunter lode, by four men, at 10s. in 17. Having several times during the late temporary suspension reported on the prospects and value of the points herein referred to, I shall defer again doing so in this report, but shall in the forthcoming week give a detailed report of the changes that have occurred during that period.

**REEDMOOR.**—T. Taylor, Dec. 14: The lode in the 80 east, on Kelly Bray, is about 3 ft. wide, composed of mull, quartz, and iron, and stones of copper ore, the 80 west, on Kelly Bray, the lode is 2 ft. wide, producing good stones of ore. The branch we cut last week in the 80 west, on the account-house shaft lode, is about 8 in. wide, composed of mull, spar, and copper ore. No alteration in the tribute pitches since last report.

**RIBDEN.**—N. Rines, Dec. 16: Since the purchase of the whim-engine (which we have had on very advantageous terms) on Saturday last, we have cleared out the foundation of the house, and are now busy in getting stone, lime, sand, &c., and shall have everything in readiness for the masons to commence their work in the morning, as it is of the utmost importance to get the engine to work as soon as possible.—Ingley's: The lode in the 60, each way of the winze, is much the same as it has been for some time. The air being so bad in the rise in back of the 50, I have removed the men to cut a shaft down from the 50 to the level of the 40, which will keep the air from the 50 level; but the springs being up pretty well, and the country full of water, we are benefited by every shower. I think there is every prospect of a good season for stamping. We intend to put the oven for calcining to work on Monday next; soon after that we shall begin to get about some tin.

**RIVER TAMAR.**—J. Cock, Dec. 14: The lode in the adit level is 4 ft. wide, yielding occasional stones of ore; the ground continues favourable for driving. In the 70 the ground is easier than it was; the lode is yielding good stones of copper ore, and seems likely to improve.

**ROSEWALL HILL AND RANSOM UNITED.**—P. Roach, Dec. 15: Since the 8th inst. we have secured 3 fms. of engine-shaft, making it good to the 100; cleared the 80 east 3 fms. and the 70 west 10 fms., which opens a communication with Penberthy's shaft, and thereby improves the ventilation. In the Ransom, we have cut a pit at the 80, and shall soon commence driving west; driven the 60 east 2 ft. (here the lode is improved to 30½ per fathom); driven the 40 east 2 ft. (the lode as last reported); and driven the 30 north on the cross-course 1 fm. The mine in both Rosewall Hill and Ransom is opening as well as could be expected, and we hope shortly to set the stamps to work and commence making returns.

**SORTRIDGE CONSOLS.**—J. Richards, Dec. 16: There is no alteration to notice.

**SOUTH CARN BREA.**—T. Glanville, Dec. 11: Tatwork settings:—The flat-rod shaft to sink below the 78, by nine men, at 24½ per fathom. The 78 to drive east of the flat-rod shaft, by four men, at 9½ per fathom. The 78 to drive west of the flat-rod shaft, by four men, at 7½ per fathom. The 68 cross-cut to drive south of the flat-rod shaft, by four men, at 5½ lbs. per fathom. The deep adit to drive east of the cross-course on the lode, by two men, at 3½ per fathom.

**SOUTH CRENVER.**—E. Chagwin, Dec. 13: In the 105 west the lode is 2½ ft. wide, producing 1½ ton of ore, worth 6½ per fathom. The lode in the 94 winze west is 2 ft. wide, producing 2½ tons of ore, worth 9½ per fathom. In the 54 west the lode is 2 feet wide, producing 1½ ton of ore, worth 6½ per fathom. In the 84 east the lode is 2 feet wide, producing 2 tons of ore, worth 9½ per fathom. The lode in the 74 slope, east of Gore's shaft, is 2 ft. wide, producing 1½ ton of ore, worth 7½ per fathom. Our tribute pitches throughout the mine are without change to notice.

**SOUTH DOLCOATH AND CARNARTHEN CONSOLS.**—Wm. Roberts, Dec. 14: Nothing new to report.

**SOUTH LADY BERTHA.**—W. Goss, Dec. 16: The 40 is now clear of stuff, and shall set pitches in various places, having a good ore lode. I will give the value in my next. One step in the bottom, from what I can see, is 10 in. wide, solid ore, worth 15½ per

ton. We shall now drive south on the main cross-course, which is 12 ft. wide, composed of fluor-spar, jack, sulphurous mull, and copper ore, of the richest quality. This will cut our main lode as well as the south lode, all of which present good prospects to surface; in fact, copper ore. The shaft being down 40 fms., gives each lode 70 fms. licks, all of which is commanded by the water-wheel, &c.; the crusher will be erected without delay. We have now a whim adit open which has cost 7000l. and four years' labour. The winze in the bottom of the adit is producing good work for copper ore. I am satisfied this mine will be found better than anything I have ever said respecting it; other operations and dressing going on satisfactorily.

**SOUTH PENHALDARVA.**—T. Hodge: The shaftmen are engaged cutting pit in the 20. In the 20 north we have a leader on the east side of the lode 1 foot wide, composed of soft spar, fluor-spar, mull, and spots of lead. The 20 south is suspended for the present.

**SOUTH WHEAL BETSY.**—C. Bartle, Dec. 14: Our settings of the 19th consist in the deep adit cross-cut to drive east of Carpenter's shaft, by four men, at 6½ lbs. per fathom; the deep adit cross-cut to drive west by two men, at 6½ per fathom; the end is letting out much water, as if we were near the lode. The whim-shaft to case and complete to the 20, as per bargain, 5l. The lode in the whim-shaft is 3 ft. wide, producing more good saving work. A cross-cut to drive west of the whim-shaft at the 10, by four men, at 3½ per fathom; ground congenial for lead, with small branches of lead; we expect about 5 fms. will cut the lode. The pitches are much as when last reported.

**ST. DAY UNITED.**—W. Teague, Dec. 16: We have an improvement in the 144 fm. level, west of Trussell's north shaft, on the copper lode, which will yield 3 tons of ore per fathom; this is under the sink or bottoms referred to in my last. The 144 east is not looking quite so well, but I think it will shortly improve to its former value. The 134 is well looking very well, and is worth from 3 to 4 tons of ore per fathom. The winze on tin lode is not looking so well, but is a good lode. Other places are without change.

**SUNNY SIDE.**—J. T. Bell, Dec. 16: The workmen will finish the walling of the shaft this day, but not yet set a ton of ore. The shaft is sinking, but shall be able to do so to-morrow. The depth of wall is now about 9 fathoms, and is a substantial piece of masonry. The men in the adit are advancing the forebore regularly but not rapidly, the ground being somewhat more difficult to cut. In another week I expect to be able to report considerable progress.

**TAMAR SILVER-LEAD.**—T. Foot, Dec. 14: The ground in the 226 south still continues favourable for driving. In the 215 south there has been no lode taken down since my last report; the lode in the winze sinking in the bottom of this level is 1½ ft. wide, yielding good stones of lead. The steps in the back of this level, three in number, are producing respectively 10, 9, and 8 cwt. of lead per fathom. In the 205 south we are driving by the side of the lode; the ground is moderately easy for progress. The steps in the back of this level, five in number, are yielding as follows:—No. 1, 10 cwt.; No. 2, 12 cwt.; No. 3, 20 cwt.; No. 4, 15 cwt.; and No. 5, 10 cwt. of lead per fathom. The steps in the back of the 190 south are producing as follows:—No. 1, 7 cwt.; No. 2, 6 cwt.; No. 3, 9 cwt.; No. 4, 8 cwt.; and No. 5, 5 cwt. of lead per fathom. Nothing new in any other part of the mine.

**TOLCARNE.**—Dec. 11: Field's shaftmen have divided and cased the shaft down to where they holed in the rise, and have put in footway from the surface to the bottom of the divisions; since finishing the above work, they have commenced cutting down the shaft. It will take about three months from this time to complete it, as the western end of the shaft is found to be 16 ft. to the east of the eastern end of the rise, and from the bottom of the shaft to the back of the adit is about 13 fms. The lode in the adit end, west from Field's, is about 6 in. wide, and worth about 10½ per fathom.

**TRELOWETH.**—T. Richards, Dec. 11: In sinking Cole's engine-shaft below the 100 the lode is 6 ft. wide, containing quartz, capel, and chlorite, mixed with copper ore. The lode at Woodfall's shaft, sinking below the 70, is 5 feet wide, and contains grey ore and mull. In the 70, driving west of Woodfall's shaft, the end is in the cross-course. In driving the 50 cross-cut south-west of the cross-course we have not cut any branch or lode during the past month.

**TREWEATHA.**—T. Richards, Wm. Rowe, Dec. 15: The engine-shaft is down below the 90 fm. level 2 fms. 1 ft. The 90 east is producing some saving work. In the same level north the lode is worth 2½ per fathom. The 70 north is without any important change. The winze in the bottom of this level is worth 2½ lbs. per fathom. The eastern lode in the 50 north is producing a little saving work. The steps are much the same. We sold on Dec. 15 two parcels of ore—No. 1 to T. Somers, at 25½ 7s. 6d. per ton, and No. 2 to Messrs. Michell and Sons, at 9½ lbs. per ton.

**VALE OF TOWY.**—S. Harper, Thos. Harvey, Dec. 14: Clay's engine-shaft is sunk 11 fms. 3 ft. 6 in. below the 60; the lode is about 4 ft. wide, composed of spar and barytes, with spots of lead, but not to value. We shall now commence cutting pit in the 70. The lode in the 60, south of this shaft, is 3 ft. wide, as last reported—saving work for lead. The lode in the 60, south of this shaft, is 4 feet wide, producing occasionally some good lead. The lode at Field's shaft, sinking below the 50, is 3 ft. wide, producing 6 cwt. of lead per fathom. The lode in the 50, south of this shaft, is 3 ft. wide, and of much the same character as last reported. The lode in the steps in back of the 50, south of this shaft, is 2 ft. wide, producing 12 cwt. of lead per fathom. We are busily engaged in securing No. 3 winze with timber, &c., making it complete for a trip-pole, to bring the stuff from the 40 to be conveyed to Field's shaft on the tram-road, the same being complete to this point, and hope in a few days to be able to set some good pits in the 40. The lode in the 50, north of Bonville's shaft, is 1½ foot wide, composed of barytes and spar, with spots of lead, but not to value. We have commenced to rise in back of this end, against No. 2 winze, in bottom of the 40, so as to give proper ventilation to the 40 and 50. The lode in the 40, north of this shaft, is 1 ft. wide—poor. We have suspended this end for the present, and put the men to sink No. 2 winze; the lode is 3 feet wide, and will produce 14 cwt. of lead per fathom. The lode in the rise in back of the 40, north of this shaft, is 2 ft. wide, producing about 10 cwt. of lead per fathom. Not having sufficient air for both parties to work to advantage, we have also suspended this until the lode is holed. We set on Saturday last nine tribute pitches, varying from 45 to 120½ per ton of lead.

**WEST BASSET.**—W. Roberts, Dec. 14: On the north lode, in the 114 west the lode continues 2 feet wide, producing stones of ore—tribute ground. The 94 east produces 3 tons of ore per fathom. In the 84 east the lode is 1 foot wide—tribute ground. On the engine lode, in the 94 west the lode is 3 ft. wide, very promising, with stones of good ore. The 75 west produces 2 tons of ore per fathom. On the south lode, in the 52 west the lode is 2 ft. wide, producing 1 ton of ore per fathom. The tribute pitches are turning out well.

**WEST CRINNIS AND REGENT.**—J. Webb, Dec. 15: The lode in the 80, driving west, has improved since taking it from the old workers. The lode in the 70, driving west, is 3 feet wide, yielding good stones of copper ore, a promising lode. The 60, driving west, is producing stones of ore, easy for driving. The 70 cross-cut is within 4 fms. to where we expect Bell's lode. The 50, driving west on Bell's lode, is producing good work for copper ore, and is a very good lode. The 40, driving west on West Crinnis's shaft, is producing saving work. There is but little alteration in the tribute pitches and steps. I enclose invoice for the last sale of ore, amounting to 829½ lbs. 2d.

**WEST PARK CONSOLS.**—J. Webb, Dec. 15: The 65 is getting within a few feet of No. 2 shaft; the ground here, during the last 7 or 8 fms., has been hard, and slow for driving; the lode is unproductive. In the 55, driving east, the lode is large, and of a promising character, containing a little tin. We are sinking a winze below the 45 to ventilate the 55; we are getting good stones of



worth 107. per ton. The stopes in the back of this level, for 50 fms. in length, are sloping at an average price of 36s. per fm., and worth, on average, 187. per fathom. The winze, sinking below the 40 fms. level, about 20 fathoms west of the 30 fathom level end, is worth 127. per fathom. The 40 fathom level, driving west from Trevelyan shaft, on the north lode, is improved in appearance, the lode being about 18 in. wide, spotted with ore. At our setting on Saturday last we set ten tribute pitches, at tributes varying from 3s. to 12s. in 11. The prospects we consider very cheering throughout the mine, and we calculate we have 100 tons of ore raised since our last sampling, three weeks ago.

**WHEAL EDWARD.**—M. H. East, Dec. 10: North Lode: The shaftmen are making good progress with the skip-road from the 71 to the 82. The lode in the 71 west is 4 ft. wide—poor. The lode in the bottom of the 82 west is 5 ft. wide, and will produce 2 tons of ore per fm. There is no change of importance in the ends—South Lode: The shaftmen are sinking by the side of the lode, and fair progress is being made. The lode in the 71 east is 2 feet wide, producing stones of ore. In the 71 west the lode is small, but that is generally the case near the cross-course. The lode in Wilton's stopes, in back of the 75 west, is worth 2 tons of ore per fm. Hampton's stopes, in bottom of the 61 east, is worth 3 tons of ore per fm. Sandy's stopes, in back of the 61 east, is worth 2½ tons of ore per fm. The lode in the 61 east is large, and worth about 2 tons of ore per fathom. —P. S. Our sampling for November altogether advertised as 110 tons, in reality is 120.

**WHEAL ELLEN.**—N. T. Miners, J. Hosking, Dec. 15: At diagonal shaft, sinking under the 40, the lode is 1 foot wide, worth 87. per fathom. In the 40, driving west, the lode is 20 in. wide, worth 167. per fathom. In the 40, driving east, the lode is improved, now worth 87. per fathom. Other parts of the mine are much the same as last reported.

**WHEAL EMMA.**—W. Goldworthy, Dec. 16: We have no change to report in the 55 since my last, as we have not cut into the lode any further, for, as I then stated, the eastern water falls to the bottom, which we much like to see, being a favourable indication; but we must complete our work and fix our larger shaft at this level to be fully prepared for any further increase which we may expect in cutting through so large a lode. The 46 east is producing more ore than last reported, and continues a very large lode. We are not carrying either wall, but intend cross-cutting to both before next setting-day. There is no change to notice in the 66 west. Our tribute department is progressing favourably. The produce for the six weeks ending Nov. 27 exceeds 100 tons, and is of good quality.

**WHEAL EXMOUTH.**—W. Skewis, A. Nicholls, J. Rodda, Dec. 15: We have resumed driving the 60 north by six men, and the part of the lode on which we are driving is producing a little ore, but not sufficient to value; the principal part, however, is still standing to the west, which we intend to cross-cut as soon as we have communicated the rise in back of this level with the 40, which we expect to do by the end of this week. The lode in the rise is worth ¼ ton of lead ore per fathom. Mark's rise, in the back of this level, is communicated with the 40, and the men are now set to stop the back, at 11. per fathom; the lode will yield about 6 cwt. of lead ore per fathom. The western lode is not yet reached by Porter's cross-cut. The lode in the 40 north is 3 feet wide, hard, and spare for driving, but is producing some good stones of lead. The cross-cut west in this level has intersected some small branches, containing lead, but not rich. The 20 north is at present suspended. In the south end, in the same level, the lode is 1½ ft. wide, worth ¼ ton of lead ore per fathom. The 10 south is yielding about 5 cwt. of ore per fathom. We have cleared the main adit so far to form a communication with the adit south, which has greatly improved the air in that part of the mine. The pitches throughout the mine are yielding a fair quantity of ore. We sampled on Monday last 85 tons of No. 1 and 60 tons No. 2 quality lead ore.

**WHEAL GRENVILLE.**—George R. Odgers, Dec. 11: In the 80 east the lode is from 18 in. to 2 ft. wide, composed of quartz and iron; there is a great deal of water flowing from the end. In the western end, same level, the part we are driving on is about 12 in. wide, composed of quartz, &c., containing stones of ore and muddle; I beg to notice here that there is a part still standing in the south side, which we think to be the main part. In the 66 east there is no material alteration, and we think it best to suspend it for the present, and cross-cut north to cut the new lode seen in the cross-cut; we shall have from 7 to 8 fms. to drive, which will be 30 fms. from the last intersection. In the same level west the lode is about 18 in. wide, principally of quartz; the character of this lode, with the ground by the side (which is a stiff granite), ought to make ore, if we may judge from what we have seen in the other levels. There is nothing new in the cross-cut north. In the costaining department we are continually meeting with branches, but I am afraid we cannot go deep enough to find a defined lode, because they do not back up here.

**WHEAL HARRIET.**—S. Williams, Dec. 11: The counter lode in the 100, east end, is 3 feet wide, and worth for tin 207. per fm.; this is at present a very promising lode. The main lode in the 90, east end, is 1 foot wide, worth for tin 107. per fm. The main lode in the 74, east end, is 1 foot wide, producing 1 ton of copper ore per fm. The main lode in the stopes below the 74 is worth for copper ore 307. per fm. The main lode in the deep adit is producing 2 tons of copper ore per fm. The main lode in the stopes below the deep adit is producing 2 tons of copper ore per fm. I think on our present operations the prospects are encouraging.

**WHEAL MARY EMMA.**—W. Doble, Dec. 11: Since our last meeting, held in August, the following work has been done:—Lane's engine-shaft sunk 12 fms. 4 ft. Driven a new adit 28 fms.; driven a cross-cut north 9 fms. 1 ft.; and driven on the north side 4 fathoms. Stopping the adit level from the new drive to first adit shaft, 6 fms. 5 ft. To make it as plain as possible, I have herewith sent you a rough ground plan and section of the workings, lodes, and cross-courses. Lane's engine-shaft is made good 12 fathoms 4 feet; it is carried 10 feet by 6 feet (clear within timber). The first 8 fms. before we came down on the lode we were obliged to clear timber; the last 4 fathoms 4 feet we have been working on the lode, which has gradually improved in size and quality, the same being full 2 feet wide, 16 inches of it being the lode part, producing very good work for tin and copper. There are five other lodes that can be worked from the same engine-shaft, being all within the distance of 40 fathoms, and the one sinking on being in the centre, and perpendicular. A new adit has been made from the river to the old level 28 fms.; from thence to the engine-shaft we had to widen it, to fit it for wheeling the stuff instead of hauling it to surface, 6 fms. 5 ft., thereby doing away with horse labour (we were also obliged to do it as the old level was choked, and it would take more time and money to repair the old one than to make the new adit), and for the convenience of bringing the stuff upwards, as stated above, we have made the new one large enough to take all the water from the heavy floods that assail us near Dartmoor, which was not the case with the old adit. There is also a cross-cut driven north from the deep adit 9 fms. 1 ft., which has intersected two lodes: the north one is driven on about 4 fms., which is full 2 ft. wide, of a very promising character, and has every appearance of being good productive. There has nothing been done on No. 4 lode, marked in the plan. There are two other lodes south of the engine-shaft, as shown on the plan, No. 2 being within 6 fms. of the one the shaft is sunk on, the former parties who had this mine have done a good deal of work in the back of this lode. It is reported by men who worked part of those workings, about 20 years since, that there is a good course of tin gone down in the bottom of this level (the deep adit); this level we have not yet cleared, but it is quite evident, by the extent of workings on this lode, that it must have been very productive. The south lode (or No. 1) on the plan, is the Wheal Mary Emma lode; the adit on the west side of the river is on this lode, from which has been raised several tons of tin above the adit. There is nothing done below the adit but three small sinks (marked as winzes in the section). This lode is large and productive as far as yet explored, but the workings are too shallow to expect a good and profitable mine. If we take into consideration the prosecution of lodes within such short distance of each other, most of which have proved productive on the lode being intersected by so many cross-courses, having the junction of the granite and killas in our present workings, with the possibility of some of the lodes forming a junction, my own opinion is we have every reasonable chance of a good and lasting mine. We have a good supply of water for all purposes, such as drawing machinery that may be required, dressing, &c., running through the centre of the sett; a 40-foot diameter wheel, 3 ft. breast; 8 heads of stamps, with more than 100 fms. of railroad tram-wagon, &c., with requisite buildings, such as counting-house, smith's shop, material-house, and powder magazine. In conclusion, I would recommend the prosecution of the same points of working as we are now carrying out, and taking into account the prospects, and the many advantages for working the mine economically, we have a good mining property.

**WHEAL TEHIDY.**—J. Pope, Dec. 15: We have nothing new to report this week; the appearances being much the same as last reported. —P. S. The branch referred to by Capt. Lankbury in the 60 cross-cut north is very small—nothing more than a division in the ground. I think enough is done on that branch to satisfy any miner.

**WHEAL TRELAUNY.**—W. Jenkin, W. Bryant, T. Grenfell, Dec. 16: Smith's shaft is sunk 6 ft. under the 132. We have not intersected the lode yet in this level, the ground being still very hard and wet. The lode in the 142, north of the shaft, is 2 ft. wide, and worth 157. per fm.; in the same level south it is small and unproductive. In the winze sinking under this level it is 3 ft. wide, worth 157. per fm. In the 132, north of Chippendale's shaft, it is 2 ft. wide, worth 107. per fm. In the 120, north of ditto, it is 2 ft. wide, worth 87. per fm.—South Lode: Trevelyan's shaftmen are still engaged in cutting pitch. The lode in the 43, south of the shaft, is 3 ft. wide, worth 107. per fm. In the 130 south it is 3 ft. wide, worth 107. per fm. In the 107 west it is 3 ft. wide, and worth 87. per fm. The stopes and pitches are producing much as usual. We intend to sample on Saturday next, all being well, about 80 tons of crop lead ore.

**WHEAL TREMAYNE.**—R. Williams, John Williams, Dec. 11: At the boundary engine-shaft, sinking under the 123, the ground in bottom of said shaft is favourable, and looks congenial for making tin. In the same level, east of shaft, the lode is still disordered by floors of spar, yielding good stones of tin in places, with indications of an improvement shortly. The stopes in back of the same level is worth 157. per fm. In the 113, east of Allen's shaft, on Allen's branch, the branch in this level is looking well, worth 267. per fathom. The stopes in back of the same level are worth on an average 167. per fm. We have commenced the 103 cross-cut, south of Allen's branch, east of the same shaft, towards the engine lode, and calculate 4 or 5 fms. will intersect the same. The stopes in back of the same level are worth on an average 137. per fm. The stopes in bottom of the 73, east of the same shaft, is worth 67. per fm.

**WHEAL UNION.**—T. Glanville, Dec. 11: The following is a copy of our tutwork and tribute setting, Friday last being our setting-day, and also a report of the mine:—Tutwork: The 40 to drive east of the engine-shaft by six men, at 107. per fm.; lode 2 feet wide, worth for tin 107. per fathom. The 30 to drive east of engine-shaft by six men, at 31. 10s. per fm.; lode worth for tin 47. per fm. The 20 to drive west through the cross-course towards the north lode by six men, at 67. per fm.; we calculate in driving about 3 fms. to be clear of the cross-course and see the lode: the 20 to drive east of the cross-course, on the north lode, by four men, at 67. per fm.; lode 5 feet wide, composed of spar, mixed throughout with copper ore, and from the indications I am of opinion it will yield a large quantity of ore in depth. The winze to sink under the 20, on the north lode, by four men, at 67. 10s. per fm.; lode 5 ft. wide, composed of spar, mixed throughout with copper ore. The new shaft is down 3 fms. 0 ft. 8 in. below the 20—reset to sink by nine men, at 127. per fm.—Tribute: A pitch in back of the 20 to extend from point of horse 5 fms. west, 5 fms. east, and 10 fms. high, by two men, the month, at 10s. 6d. in 11. A pitch in back of the 20 to extend from Lawn's pitch 12 fms. east and 10 fms. high, by two men, at 11s. in 11. A pitch in bottom of the 20 to extend from point of horse 30 fms. east and 5 fms. below, by three men, at 12s. in 11. A pitch in bottom of the 20 to extend from the winze 5 fms. east, 5 fms. west, and 8 fms. below, by four men, at 1s. in 11. A pitch in back of the 30 to extend from Bishop's winze 5 fms. east, 5 fms. west, and so high as the level above, by two men, at 6s. in 11; a pitch in back of the 30 to extend from the dialling mark to join Will's pitch, and so high as the level above, by two men, at 10s. 6d. in 11. We have now to surface about 1507. worth of tin ore.

**WHEAL WREY CONSOLS.**—P. Clynio, W. Hancock, R. Roskilly, Dec. 16: The engine-shaft is sunk 8 fms. 4 feet under the 74. The lode in the 74 north is 3½ feet wide, producing 8 cwt. of lead per fm.; in the same level north it is 5 feet wide, producing 4 cwt. of lead per fm. In the 64 south it is 2½ feet wide, producing 6 cwt. of lead per fm. In the same level north it is 3 feet wide, producing 5 cwt. of lead per fm. In the 54 south it is 2½ feet wide, producing 9 cwt. of lead per fm.; in the same level north it is 3 feet wide, producing 6 cwt. of lead per fm. In the 44 north it is 2 ft. wide, producing 2 cwt. of lead per fm. The stopes and pitches are producing much as usual.

**NORTH WHEAL TRELAUNY.**—H. Hodges, Dec. 16: Major's shaft is sunk 14½ fms. under the 40. The cross-cut in this level is extended west 17 fms. towards the lode, and we are daily expecting to cut it; we hope it will prove as productive as in Ludcott. The lode in the winze sinking under the 27 south is 18 in. wide, producing 3 cwt. of lead per fm., and from its appearance we are expecting a further improvement.

THE STEAM-BOILER ASSURANCE COMPANY have issued their table of premiums, and will be completely registered before the close of the present year, and prepared for business early in 1859. The character and objects of the company have been already so fully described in the *Mining Journal*, that it is only necessary to refer to the more mature plan of working arrangements. The kingdom, as before explained, will be divided into six districts, each under the superintendence of a competent engineer, as chief inspector, aided by a necessary staff of assistants. Every precaution will be taken to ensure all boilers being rated according to their construction and condition, so that there may be the utmost inducement to employ those boilers least liable to accident. A table of premiums has been thus fixed:

Pressure per square inch to which safety-valves are loaded.				
Class.	Above	Between	Between	Between
	30	40	50	60
A	1	1	1	1
B	1	1	1	1
C	1	1	1	1
D	1	1	1	1

Thus, a boiler classed as belonging to class A, working at 35 lbs. pressure, and of the value of 3007., would be rated at 1 per cent.—307. per annum; if working at 40 lbs. pressure, and 1507. (presuming it, of course, to belong to the same class), the rate being the same, the annual premium would be 17. 10s. The company anticipate having a powerful London committee, consisting of noblemen and gentlemen, well known in the railway and commercial world, so that there can be no question that the undertaking will be well supported. The company will undertake to insure property of all descriptions, buildings, &c., against injury resulting from steam-boiler explosions, at specific rates, from 1s. to 7s. per cent., according to surveyor's reports, to the exclusion, however, of fire risks, and destruction of ships by marine boiler explosions; and life tables are in course of construction, and will shortly be issued. Mr. Longridge, so well known from his connection with the Manchester Association for the Prevention of Steam-Boiler Explosions, having been appointed engineer-in-chief, is a sufficient guarantee that the mechanical department will be carefully managed; and we may, therefore, anticipate that the Steam-Boiler Assurance Company will speedily take a by no means unenviable position amongst the most useful institutions of the country.

**ACADIAN IRON COMPANY.**—Amongst our Foreign Mine Intelligence will be found a fact of considerable importance to the shareholders in this company. The deposit of ore turning out so well at Martin's Brook has entirely changed the aspect of the works. Now, gratifying as this information must be to the shareholders, it can scarcely be considered more than they might reasonably have expected, their mines being situated in a locality well known to be rich in mineral, and the iron made having been proved to be applicable to all purposes where Swedish iron is ordinarily employed. Under these circumstances it is apparent that the shareholders have every encouragement to provide the necessary capital; and it would be much to be regretted if, as too often happens, by their apathy they permit others to step in and reap the reward to which they themselves are entitled.

**COPPER MINES OF SOUTH AUSTRALIA.**—Fresh discoveries of copper mines are reported by our correspondent, one of which is described as "a splendid mine, the specimens extraordinarily rich, and the supply large." Another, at Bundaleer, in the north of the colony, about 30 miles from the Burra Burra, is said to be equally valuable, and the lode increasing in size and richness. The assays made at Adelaide on specimens sent down gave 50 to 55 per cent. of metal from ore only 7 ft. from surface. Mining labour was becoming more abundant in the colony, by the return of miners from the gold fields of Victoria, and the arrival of fresh hands from England, so that the riches of various mines in the northern districts would soon be fully developed. "I have seen," continues our correspondent, "an official report made formerly to the local Government respecting mineral explorations in the North, to which I can now only briefly allude, in which, at various points, it is stated that 'the ground south of the River Wakefield consists principally of white clay, similar to that which is found at the Kapunda (Bagot's) Mine, and at the Burra Burra. The whole neighbourhood north and south of the Kapunda is of a nature congenial to metallic richness. With respect to the mineral discoveries on the North Rhine, the lode is of good quality, and consists of green and blue carbonates of copper, oxides of iron, and quartz. On the Reedy Creek Mine, about 20 miles further north, I discovered a large lode of copper and iron, running in a north and south direction, and cropping out at surface.' At Chambers' Mine, large quantities of malachite were being produced, and green and blue carbonates, of which about 50 tons had been shipped for England." These statements show that, although copper mining in South Australia has been pursued already to great results, the colony is in its infancy with respect to her produce of copper ore: and when the various places mentioned are opened up, there are good probabilities of other Burra Burra being found to exist; and from which mine, we find by the present advices, the quantity is as large and the quality as rich as heretofore. The half-yearly meeting of this company had been called for Oct. 20, to be held at Adelaide. The Burra Burra shares had risen to 1407. The Kapunda Mine is producing the average, and a large proportion of the ore was being smelted in the colony. The machinery for the Bon Accord has arrived at the mine, and was being put into place.

**ORE BLOOM STEEL.**—We have received specimens of Mr. Mushet's ore bloom steel, and those interested may inspect them at our office. The samples certainly appear to be of excellent quality, and although drawn down to a small size, we cannot discover the slightest imperfection which could lead us to think that there would be any difficulty in manufacturing any quantity by the same process.

**PROTECTION PROTECTED.**—THE "MINING JOURNAL" AND THE FRENCH IRONMASTERS.—A French correspondent, in reference to the fact of the *Mining Journal* being stopped, a few weeks since, by the French authorities, states that having made enquiries as to the cause of that arbitrary step, he believes it to have arisen from our having published some strictures on the monopolist French ironmasters. The position of that body must indeed be considered as sadly critical, when they show such sensitiveness as to seek Government aid to suppress the publication of independent comments, or even, as they may consider them, adverse arguments. Thus it appears that French commerce as well as French politics require protection from the free remarks of the English press.

**NEW ALMAZEN QUICKSILVER MINES, CALIFORNIA.**—Intelligence has arrived that an injunction had issued from the Federal Court, at the suit of the United States, restraining the New Almaden Quicksilver Mining Company from working their mine, and from selling the quicksilver taken from it, until further order. A motion for a receiver in the same suit was denied until a special commissioner should report to the Court whether it was essential to the safety of the property that the mines should continue to be worked pending the litigation. The injunction is founded upon alleged frauds and forgeries in the documentary title of the company, which, after a long hearing and personal inspection of the premises, are decided to exist.

**COPPER IN SOUTH AUSTRALIA.**—A private letter, dated Adelaide, Oct. 11, says:—"It is a great fact—the discovery of other valuable copper mines near this city. Last week, a very old friend of ours succeeded in developing a splendid mine. It was one of the first specimens were submitted to—there is quite 50 per cent. of copper, and the supply is any extent."

At the South Australian Company meeting, held yesterday, the directors stated that the work at the Kanmantua Mine is carried forward in a satisfactory manner by the lessees: 45 men were employed at the date of the last advices, and 180 tons of ore had been raised during the months of June, July, and August, varying from 7 to 18 per cent. produce, but chiefly from 10 to 12 per cent. The amount received as royalty during the half-year is 1137., after deducting all charges of freight to England, and of sale at Swansea. To encourage the better development of the mine, the directors have been induced to forego the royalty for 12 months, on the lessees engaging to carry the boundary shaft, now at a depth of 27 fms., to 40 fms., when it is hoped a richer lode of ore will be struck.

The Jamaica advices, per *La Plata*, to Nov. 26, continue of the same satisfactory progressive character, and give assured confidence of the success of mining pursuits in that neglected but most important colony. Jamaica only wants the application of capital to be a very largely exporting country for minerals. We shall give the usual details in next Journal.

From Valparaiso, we learn of the discovery of very rich gold mines in the Argentine Confederation, about seven leagues from Mendoza, at Canada Honda.

**SUPERHEATING STEAM.**—From the various satisfactory trials and results of the Admiralty apparatus for superheating the whole of the steam required for the propulsion of steam-engines (invented by Mr. Partridge, Inspector of Steam Machinery in Woolwich Dockyard), and which, on board Her Majesty's ship *Dee*, has been pronounced to effect an economy in fuel to the amount of from 25 to 30 per cent., the Woolwich Steam Navigation Company have obtained permission to introduce their apparatus on board their line of packets. The first vessel belonging to the company is the *Ariel*, for which the apparatus is in course of construction.

**DIED.**—Suddenly, at Aberystwith, William Evans, Esq., aged 76 years, for many years surgeon to the Gwynn and East Darnen Mines. His loss will be deeply lamented by the mining community.

\* Next Saturday being Christmas Day, it is necessary that the *Journal* be published much earlier, to meet the Post Office arrangements. Our correspondents will, therefore, oblige by forwarding their communications as early in the week as possible. The *Journal* will be published in time to forward by the early morning trains.

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Dec. 17, 1858.

COPPER.		BRASS.	
Copper wire	1 lb. 0 1 1/2	Sheets	10 1/2 d. 10 1/2 d.
Ditto tubes	8 0 1 1/2	Wire	10 1/2 d. 10 1/2 d.
Sheathing & bolts	0 11 1/2	Tubes	12 1/2 d. 12 1/2 d.
Bottoms	0 1 0 0 1 1/2		
Old (Exchange)	0 0 10		
Best selected	105 10 0		
Tough cake	102 10 0		
Tile	102 10 0		
South American	100 0 0		
IRON.		PER TON.	
Bars, Welsh, in London	7 5 0		
Ditto, to arrive	7 0 0		
Nail rods	7 10 0		
St. Stafford, in London	8 0 0		
Bars, ditto	8 0 0		
Hoops, ditto	9 0 0		
Sheets, single	9 10 0		
Fig. No. 1, in Wales	3 15 0		
Refined metal, ditto	4 10 0		
Bars, common, ditto	6 5 0		
Ditto, railway ditto	6 15 0		
Ditto, Swed., in London	13 0 0		
In stock to arrive	2 15 0		
Fig. No. 1, in Clyde	2 15 0		
Ditto, in Tyne & Tees	2 15 0		
Ditto, forge	2 15 0		
Staffordshire Forge Fig.	4 10 0		
Welsh Forge Fig.	4 10 0		
LEAD.		PER TON.	
English Pig	21 0 0		
Ditto sheet	22 5 0		
Ditto red lead	23 0 0		
Ditto white	27 0 0		
Ditto patent shot	25 0 0		
Spanish	20 0 0		
American	20 0 0		

At the works, 1s. 6d. per box less.

REMARKS.—Scarcely any alteration of moment has taken place in our market, the demand for the most part having been very steady, and prices tolerably well supported. Metals altogether seem at last to be established upon a firmer basis, and a fair prospect in the spring of higher prices, and the cheapness of money at the present time, encourage holders to maintain the current rates.

**COPPER.**—No change has occurred in fixed rates; the market for unwrought has become very little easier, smelters still declining to effect sales but for manufactured; shipping orders are very few, especially to India, large shipments during the previous part of the year having been made, and advices are not favourable for further consignments. The pressure for ingot and best select has in a measure subsided; so, perhaps, sellers may come into the market again shortly. Several of the outside smelters will deliver at once if they can obtain their price, which circumstance shows that however firm and strong most smelters would wish to keep the market, there are opportunities still open whereby buyers can get supplied by paying a little beyond current rates.

**IRON.**—Rails keep firm at former rates; merchant bars have improved 5s. per ton, the makers of the best qualities declining to sell at less than 67. 10s. per ton at the works. Staffordshire descriptions have improved in demand, and prices are steady. Scotch pigs have fluctuated very little, and the market closes quiet at 54s. 6d., m.n., g.m.b., f.o.b. in Glasgow.

**LEAD.**—Prices are the same as previously quoted; the market dull, but sellers indisposed to concede.

**SPELTER.**—A few transactions have taken place for spring delivery, at various prices—217. 15s. to 227. 2s. 6d.; the price on the spot remains unaltered at 227.

**TIN.**—In English a good business is doing. Foreign has been offered freely, but buyers are not ready to make further contracts above 1247. 10s. for Straits, and 1257. to 1267. 10s. for Banca. From Holland quotations appear higher—75s. reported.—**TIN PLATES.**—Charcoal are now 32s. 6d. per box, lowest price for best qualities; coke, 25s. 6d. per box.

**STEEL.**—Swedish keg in warehouse, 207.; ex ship, 197. 15s. per ton.

**LIVERPOOL, DEC. 16.**—We have no movement of importance to mention in our metal market, business generally having been limited, as is not unusual at this season of the year. The enquiry for Welsh iron is reported as being, if anything, somewhat easier, without, however, producing any unfavourable effect on prices, orders offered under current rates having been refused. There has been a fair demand for Staffordshire iron, and quotations are well supported. The business transacted in Scotch pig-iron has been small. The demand for export is limited, and speculation just now is very inactive; good merchantable brands, mixed numbers, storekeepers' warrants, may be quoted at 54s. 9d., f.o.b. at Glasgow. The shipments for the week are 9112 tons, against 8313 tons for the corresponding week of last year. The price of English tin is firmly maintained, a good demand being observable. Tin-plates, however, are easier, the accounts from the United States being unsatisfactory. No change in the market as regards copper; present quotations are nominal. In lead nothing of moment to report. The following are the quotations:—Iron: Merchant bar, 67. 12s. 6d. to 67. 17s. 6d. per ton.—Tin: Common block, 1217. per ton; common bar, 1227.; refined block, 1267.—Tin-plates: Charcoal, 31s. to 32s. 6d. per box; coke, 10s. 25s. to 26s.—Lead: English sheet, 237. per ton; English pig, 217. per ton.—Copper: Cake and tile, 1027. 10s. per ton; best selected, 1057. 10s. per ton; sheathing and bolt, 117. d. per lb.—Yellow metal sheathing, 97. d. per lb.—Steel: Blistered, 307. to 407. per ton; spring, 187. to 247.; cast and shear, 507. to 607. per ton.

**GLASGOW, DEC. 16.**—During the past eight days our market for pig-iron has been brisk, and a large business in warrants has been done at 54s. 6d. up to 55s. cash. The feeling has again become quieter, and we closed to-day at 54s. 9d., cash, sellers; buyers at a shade under. No. 1, Gartsherrie, 59s. 6d.; No. 1, g.m.b., 53s. 6d.; No. 3, g.m.b., 53s. 3d.—Shipments: Foreign, 4881 tons; costwise, 7231 tons = 9112 tons, against 8313 tons last year.

**NEW YORK, DEC. 4.**—Scotch pig-iron has been in good demand; we note sales of 400 tons at \$25 to \$26, at six months. In English bar very little has been doing, the present quotation being \$46 to \$47 for common, and \$54 to \$55; six months for refined. Swedes are firmly held at \$90, at six months; we only hear of sales of 100 tons by private contract. For American, holders are asking \$60, at six months, for best refined, with very little business doing. The stock of railroad iron being very small, holders are firm, \$52-50 being the price demanded. Tin is very quiet, holders being firm for both Straits and Banca, and refuse to sell except at an advance. Tin-plates are dull at \$25, six months, for 1-3 X from the ship. Copper has been more in demand, and we have to notice sales of 125,000 lbs. Lake ingot at 23½ c., cash, or 24 c. at four months. For old copper previous prices have been fully maintained, sales of 9000 lbs. of prime sheathing having taken place at 21 c., cash. For Spelter the demand is dull and inactive; for although holders are willing to sell at 5½ c., buyers refuse to give more than 5½ c., at six months.

**THE MINING SHARE MARKET,** notwithstanding a heavy settling during the week, has continued in a very buoyant state, and apart from a few fluctuations in prices, business transactions may be regarded as of a satisfactory character. East Basset, through reports circulated early in the week of failures in the 80 fm. level, receded to 150, sellers, but afterwards rose to 157½, 162½, and in demand; the latest report we have seen values the 80 west at 1007. per fm.; the 80 east, 807. per fm.; the winze below the 60, 607. per fm.; the stopes in the bottom of the 60, 607. per fm. West Stray Park shares have risen to 5, 5½; the silver lode of North Dolcoth having, it is said, been met with in the north part of the sett. East Rosewaine, after receding to 3, rose suddenly to 1½, and left off at 1. Bryn-tail, 10½ to 11½, and good business doing; the lode has improved to 1207. per fm.; in our last error occurred—instead of "mine rather improved," which, as a correspondent says, is not saying much, we wrote "mine further improved." West Caradon shares have been in request, at 130 to 135; South Caradon, 405 to 410; South Caradon Wheel Hooper, 4 to 5; Ludcott, 2½ to 2½; Gonamens, 8 to 8½; Craddock Moor, 28 to 30;



Trelawny advanced to 28½, 29½. Mary Ann, 44 to 46, ex div.; at the meeting, the accounts showed a profit of 23000. for the quarter, and a dividend of 2804½, or 2½. 5s. per share, was declared, leaving 2471½. 5s. 11d. in hand; the mine report is favourable. Dolcoath, 200; at the meeting, the profit on the two months was 1878½. 2s. 1d., after charging extra costs; and a dividend of 1790½. (5½. per share) was declared, leaving 690½. 2s. 8d. in hand; the mine is looking well, and the next dividend expected to be 6½. per share. West Seton, 290 to 295; the dividend at the meeting was 7½. per share; the 110 west, reported worth 13 tons per fm., is worth 10½. per ton; the 100, 8 tons. Basset, 210 to 215; the mine is looking better in the eastern part. South Basset, 4½ to 5½, and in good request. Wheal Charlotte, 18 to 20; at the meeting, the accounts showed a balance against the company of 105½. 5s. 3d. to the end of October, but assets over liabilities to present time of 1873½. 2s. 6d.; the report of the mine is favourable, and the 40 west, for the last 2 fms., has been worth 90½. per fm. Marke Valley, 2½ to 3½, and still in request; the 90 fm. level is now approaching where the ore in Rosewood lode was first met with in the 80, and the end already improving, with good stones of ore. United Mines have risen to 115, 120, and in demand; the mine has greatly improved, and will commence good dividends early in the year. Wheal Kitty (St. Agnes), 3½ to 3½, and in request; this mine also looking well, and likely to take a good position ere long. Wheal Crebor shares were in great demand early in the week at 1 to 1½, in consequence of a notice received at the office of the company of a great improvement in the Georgina lode; subsequent reports, however, stated an elvan had disordered the lode, and shares became flatter at ½ to 1. Holmshush, 1 to 1½; the 170 tons of ore for sale next week will, we are informed, average at least 10½. per ton; in addition to which about 3800. worth of lead will be sold for the two months, leaving an estimated profit of 3000. Rosewall Hill and Ransom, 2½ to 2½; an improvement is reported here; in the 60 east the lode is worth 30½. per fm. Great South Tolgus, 13 to 13½, ex dividend of 3000½. (10s. per share), declared at the meeting on Thursday. The next dividend, in February, is expected to be 7s. or 8s. per share. North Downs, 2½ to 3. Hingston Down Consols, 3½ to 3½; shares are flat, notwithstanding the lode in the 100 fm. level is yielding 5 tons of ore per fm., and looking like improvement. Kelly Bray, 2 to 2½; Redmoor, 4s. to 5s.; Lady Bertha, 29s. to 31s.; North Robert, 2½ to 2½; Pedn-an-drea, 4½ to 5½; Great Hewas, 1½ to 2½. East Russell shares have kept pretty steady at 7½ to 7½, leaving off at 7½ to 7½. West Par Consols, 13s. 6d. to 14s. 6d.; Vale of Towry, 12s. to 13s.; Tolcarne, 14s. 6d. to 15s. 6d.; Wheal Harriett, after reaching 1½, left off at 15s. to 16s.; Kitty (Lelant), 8½ to 9; South Condurow, 4s. to 5s.; South Frances, 230 to 235; Condurow, 45 to 55, and enquired after; South Carn Brea, 2½ to 3½; North Basset, 8 to 9; Wheal Wrey, 2½ to 2½; North Dolcoath, 5½ to 6½; North Roskear, 21 to 22; Bedford United, 6½ to 6½; Nantoes and Penrhyn, 1½ to 1½; North Minera, 5 to 5½. North Frances, 7½ to 8½; driving has commenced here in the 70. Wheal Sydney, 4½ to 5½; Catherine and Jane, 6s. to 7s.; West Frances, 11 to 12; West Basset, 22 to 23; Tamar Consols have advanced from ½ to 1, 1½; Wheal Grenville flat at 1½ to 1½. Trevelec, 18 to 20; the latest report states the 100 fm. level east to be worth 1½ tons per fm.; west, 4 to 5 tons per fm.; the winze sinking below the 90 fully 8 tons per fm.; the 90 west, 5 tons. Rosewarne and Herland, 8 to 8½; at the meeting, four months' costs were charged against three months' returns, and left a balance in hand of 469½. 7s. 9d. Wheal Addams, 26s. 6d. to 27s. 6d. Grambler and St. Aubyn, 130 to 135; the ore sampled on Thursday, 129 tons, is expected to realise 2000½; the lode at the shaft is worth 40½. per fm.; the 34 east 25½; the north lode has been cut, 2½ ft. wide, but not opened on yet. Pendecan, 4½ to 4½; Devon and Courtenay, 4½ to 5½; Herodsfoot, 6½ to 7.

The committee of EAST WHEAL RUSSELL MINING COMPANY have taken a step with reference to a statement of Mr. James Crofts, in our Journal last week, which entitles them to the thanks not only of the shareholders in the company, of whose interests they are the guardians, but of shareholders in mining companies generally, as tending to put an effectual stop to the propagation of those false reports by which the value of shares in mining companies is too often either unduly enhanced to the prejudice of the public purchasing, or unduly depreciated to the injury of a shareholder selling.

Our readers are aware that considerable interest has for some time past been taken in the East Wheal Russell. A lode was cut in the 66, and if this lode held down to the 88 it seemed to be admitted that East Wheal Russell would become a good mine. The 88 has been in course of driving for some time past, and, of course, the point of interest was whether the ore in the 66 had gone down, and would be met with in the 88. In this state of things Mr. James Crofts writes in his letter, in our Journal last week, as follows:—

Its real value (the East Wheal Russell's) depending on the cutting of the lodes rich in the 88 fm. level, it having gone down from the 66 fm. level, but the result has been the getting through the lode in the 88 fm. level and finding it to contain, with some exceptions, not saving work.

Now, there is no mistaking this language; it boldly affirms, as a fact, that the value of the mine depended on the character of the lode to be met with in the 88 that had gone down from the 66, and that this lode had been driven through in the 88, and found to contain, with some exceptions, not saving work; a statement which, if true, would, no doubt, send down the shares to a nominal price. The attention of the committee of management was called to this statement, and the course they adopted was one as bold as it was judicious, as will appear by a perusal of the advertisement in our columns of this day. They stigmatised Mr. Crofts' statement as false, and without foundation, and that Mr. Crofts knew it was false when he wrote it. The committee have fixed Mr. Crofts in a position from which he can only extricate himself by proving "that the lode where productive in the 66 has been driven through in the 88, and found to contain, with some exceptions, not saving work." If he does not do this he must remain with the impression on all minds the advertisement is calculated to leave; and that he cannot do this, we believe, beyond controversy, seeing that the lode in the 88, under the ore in the 66, has not even yet been reached, much less driven through and found unproductive, as asserted by Mr. Crofts.

The committee of East Wheal Russell show by their advertisement they do not intend to rest satisfied with a mere denial of the truth of Mr. Crofts' statements, but in order to protect the shareholders against such disreputable practices, they avow their intention to prosecute all persons willfully and knowingly propagating false statements, having for their object the undue enhancement or depreciation of their property; and there can be no doubt that such proceedings will end beneficially for the mining interest.

There was no Cornish Ticketing on Thursday. The sale at Truro on Thursday next will comprise 4431 tons.

The arrivals at Swansea include—from Bilbao, 13 casks and 179 tons of copper ore; from Caldera, 470 tons of copper ore.

In SALTETRE, during the past week there has been but a very limited amount of business doing, and prices remain without alteration. We only note sales of 723 bags of Bengal, of 14½ to 15 per cent. refraction, at 39s.; on Wednesday, 1738 bags of Bengal were offered at public auction, the greater part of which was bought in at last week's quotations—9½ per cent. ref., 40s. 6d.; 8½ per cent. ref., 41s. 9d., and 4½ to 3 per cent. ref., 44s. We note sale of 25 tons for arrival at 42s. 6d., for 5 per cent. ref. During the week 195 tons have been landed, and 188 tons delivered; the stock in hand being 86,828 tons, against 62,714 tons at the same time last year.

In the COAL MARKET, during the past week very little has been doing, especially in house coals, and the arrivals have been exceedingly small; on Monday, only 55 ships were at market, 48 of which were sold, the prices obtained being—Best Wallsend, 18s. to 18s. 6d.; second quality do., 16s. 3d. to 17s. 3d.; manufacturers', 12s. 6d. to 15s. 6d.; and Hartley's, 14s. to 14s. 9d. On Wednesday, in consequence of the small number of arrivals, only one of which was freighted with house coals, and there being none of that description on hand, a trifling advance took place in the price. Manufacturers' and Hartley's were very dull at previous rates. Yesterday, there being a slight improvement in the supply, especially of house coals, prices again receded, and the closing quotations were—Best Wallsend, 18s. to 18s. 6d.; second quality ditto, 16s. 6d. to 17s. 6d.; manufacturers' 14s. to 15s. 6d., and Hartley's, 14s. to 14s. 6d.

At West Wheal Seton meeting, on Tuesday, the accounts showed—Balance last audit, 1807. 15s. 1d.; copper ore sold, 6390½. 9s. 6d.; materials sold, 144. 14s. 1d.; 6385½. 18s. 8d.—Mine cost, Sept. and Oct., 2156½. 2s. 9d.; poor and waste rates, 50½.; merchants' bills, 681½. 5s. 3d.; new erections and materials, 400½.; lord's dues, 426½. 0s. 7d.; leaving credit balance, 2872½. 7s. 11d. The profit on the two months' working was 2891½. 14s. 10d. A dividend of 2800½. (7½. per share) was declared, and 72½. 11d. carried to credit of next account. The amount of copper ore to be credited on next account is 6786½. 14s. 10d. Capt. C. Thomas, M. Bath, and John Jennings reported upon the position of the mine.

At Dolcoath Mine meeting, on Monday, the accounts showed—Balance last audit, 602½. 0s. 7d.; copper ore, tin, and arsenic sold (deducting lords' dues and poor rates), 7954½. 0s. 3d.; carriage, 9½. 2s. 10d.; old iron and junk, 179½. 12s. 10d.;

8748½. 2s. 8d.—Mine cost, Sept. and Oct., 4328½. 3s. 4d.; merchants' bills, 1787½. 16s. 6d.; water and other rents, 179½. 0s. 2d.; leaving credit balance, 2480½. 2s. 8d. The profit on the two months' working was 1878½. 2s. 1d. The agents reported upon the state and prospects of the mine. A dividend of 1799½. (5½. per share) was declared, and 690½. 2s. 8d. carried to next account.

At Great South Tolgus meeting, on Dec. 16, the accounts showed—Balance last audit, 1772½. 16s. 9d.; tin account, 4½. 19s. 6d.; copper ore sold, September, 1690½. 18s. 8d.; ditto Oct., 2457½. 18s. 11d.; advanced on tribute, 92½. 17s. 10d.—Oct. dividend, 1590½.; mine cost, merchants' bills, &c., Sept., 729½. 14s.; ditto Oct., 685½. 17s. 7d.; advance on tribute, 40½.; sundries, 20½. 19s. 9d.; leaving credit balance, 8029½. 6s. 6d. A dividend of 3000½. (10s. per share) was declared.

At Wheal Charlotte meeting, on Dec. 13, the accounts for July and August—Mine cost, 603½. 6s. 10d.; merchants' bills, 184½. 15s. 5d.—788½. 2s. 3d.—Balance last audit, 67½. 2s. 6d.; ore sold (less dues), 37½. 19s. 6d.; 715½. 12s. 5d.; tin stuff (less lord's dues, 2s. 9d.), 2½. 6s. 8d.; leaving debit balance, 647½. 0s. 8d. For Sept. and Oct. the accounts showed—Balance last audit, 64½. 0s. 8d.; mine cost, 657½. 9s. 9d.; merchants' bills, 352½. 16s. 10d.—1104½. 7s. 3d.—Copper ore sold (less lord's dues, 52½. 12s. 7d.), 990½. 2s.; leaving debit balance, 1031½. 6s. 3d. The assets over liabilities (charging Nov. cost, and bills to Jan. 8) were 1873½. 2s. 6d. Capt. R. Gundry and F. Hosking reported that there were 10 tribute pitches, at tributes varying from 3s. to 12s. in 1½. The prospects were considered very encouraging, and they calculated to have 100 tons of ore raised since their last sampling, three weeks since.

At Yarnier Mine meeting, on Dec. 10 (Mr. J. Ware in the chair), the accounts showed—Mine cost, July, 1344½. 19s. 8d.; Aug., 148½. 2s. 1d.; Sept., 1411½. 5s. 40d.; sampler's expenses, 5½. 14s.; dues, 11½. 5s. 3d.—441½. 9s. 3d.—Balance last audit, 724½. 3d.; calls, 7½. 15s.; excess ore sold, 7s. 4d.; copper ore sold, 172½. 1s. 4d.; leaving debit balance, 185½. 11s. 8d. The arrears amounted to 387½. 2s. A call of 1s. per share was made. Capt. Hampton reported the discovery of three lodes of great promise in the southern hill, and it was resolved that he be instructed to co-stake each of the lodes as deep as possible, with a view to discover their value and underlie. The committee were re-elected, with the addition of Mr. Grant. The mine would be soon well ventilated, which would enable them to prosecute the work more vigorously. They expect to dress 10 tons per week for the present two months, and increase as circumstances would allow.

At the Boiling Well Mining Company meeting, yesterday (Mr. E. Boyle in the chair), the accounts showed—Balance last audit, 1210½. 1s. 5d.; mine cost, merchants' bills, &c., Aug., 599½. 14s. 2d.; ditto, Sept., 572½. 2s. 6d.; Oct., 645½. 5s. 10d.; lords' dues, 49½. 0s. 8d.; calls on forfeited shares, 213½. 15s.—3289½. 19s. 7d.—Call, 1235½. 8s. 2d.; ore sold, 533½. 7s.; lords' dues remitted, 150½.; leaving debit balance, 807½. 12s. 6d.; calls, 27½. 15s.; 10s. 6d. was advanced to 387½. 2s. The committee were re-elected. Details of the meeting will be found in another column.

At New Crow Hill general meeting, on Wednesday (Mr. Brunton in the chair), Mr. Brown (the secretary) read the following report from the purser:—"I can only repeat that the shareholders have the united opinion of all who know the property, and many of them are of the first class for integrity and reputation as miners—that it possesses all the properties essential for ultimately being a productive mine of importance, and that the advantages for working on the cheapest possible scale cannot be exceeded. A comparatively small sum will prove its merits, and the risk is small compared with probable results." The accounts for six months to October were submitted. Three gentlemen were elected on the committee of management, and Mr. Lucetta was elected auditor until the next meeting. 1½ tons of lead ore and 53 tons of mende were returned since the last meeting. The London and County Bank was chosen as the bankers of the company, where all calls are to be paid. The Chairman stated that from all appearances they had a promising property, and only wanted the shareholders to pay their calls, and he hoped the next account would show a better state of things.

At East Trefusis Mine meeting, on Monday, the accounts showed—Balance last audit, 318½. 7s. 7d.—Mine costs, four months, ending Oct., 270½. 7s. 9d.; merchants' bills, 77½. 3s. 6d.—655½. 18s. 10d.—Call, 500½.; received from Pen-an-drea, 80½.; leaving debit balance, 854½. 18s. 10d. A call of 10s. per share was made. Captains T. Richards and J. Pope reported that the engine-shaft was sunk 11½ fms. below the 22.

At the Garreg Mine meeting, on Tuesday, the accounts showed a balance of 266½. 12s. 4d. against the company. A call of 3s. per 1605th share was made. The agent's report stated that the new shaft had been sunk 24 fms. from surface, and a level driven east at this depth 5 fms. and west 7 fms. In the latter direction the lode is very promising, being 4 ft. wide, producing good lumps of lead ore. In the eastern end the lode is about the same width, and of a similar nature. About 15 cwt. of lead have been broken in driving these ends.

At Wheal Mary Emma meeting, on Tuesday (Mr. John Rowlands in the chair), the minutes of the last meeting were read and confirmed. The accounts, showing credit balance of 191½. 4s. 8d., were examined and passed. A report from Capt. Doble, dated the 11th inst., was read. A call of 6d. per share being deemed sufficient for the next three months, was accordingly made. A shareholder having suggested that he should have more confidence in the undertaking if inspected by an agent he named, the purser was requested to communicate with the captain, and obtain the inspection within a month. Messrs. Rowlands, Watson, and Halford were appointed the committee for the next three months. A vote of thanks to the Chairman terminated the proceedings. (The report is inserted among the Mining Correspondence.)

At Wheal Union meeting, on Monday, the accounts showed—Ores, &c., 224½. 5s. 5d.; calls received, 193½. 7s. 6d.—2157½. 12s. 11d.—Balance last audit, 958½. 17s. 6d.; mine cost, Sept., 399½. 10s. 10d.; Oct., 406½. 14s. 5d.; tribute, 60½.; lord's dues, 27½. 15s. 3d.; leaving debit balance, 331½. 15s. 3d. Capt. N. Vivian reported that a discovery had been made in the 80, east of Pryce's west, on the south lode, which appeared to be of importance; the lode was 2 ft. wide, and worth 20½. per fm. for copper ore. There are also other improvements, and the report altogether is decidedly satisfactory. It concludes—"The last two months have for the most part been unusually dry, and our water-courses, consequently, have been very low, so that we have not been able to exert more than a third of our stamping-power, and this is but an eight weeks' account. We have, therefore, considered that the tin now, in course of preparing for the smelting-house should not be carried there until the 15th inst., when the proceeds of the parcel will show the account to be a better position than it was at our last meeting. In the interim between this and our next meeting we shall doubtless have a large increase of water, and we believe that our returns of tin will be proportionally augmented, and from present appearances we hope to report much more favourably on the mine generally. The next ore sampling will, we believe, be a considerably better one than the last."

At Wheal Seton meeting, on Monday, the accounts showed—Balance last audit, 1111½. 4s. 10d.; ores sold (less dues), 2109½. 3s. 6d.; sundries, 77½. 10s.—3227½. 16s. 2d.—Mine cost, Sept., 811½. 17s. 7d.; Oct., 655½. 2s. 9d.; merchants' bills, 429½. 0s. 3d.; leaving credit balance, 1831½. 16s. 7d. Upon the two months' working there was a profit of 213½. 3s. 11d.

At Rosewarne and Herland United Mines meeting, on Dec. 9, the accounts showed—Call, 1024½.; black tin, 1548½. 18s. 6d.—2570½. 18s. 6d.—Balance last audit, 716½. 18s.—Mine cost, July to Oct., 910½. 18s. 7d.; merchants' bills, 359½. 6s. 5d.; lords' dues, 55½. 18s. 9d.; leaving credit balance, 469½. 7s. 3d. The report of Capt. Stephens was increased to 12s. per ton, including clerkship. Capt. H. Stephens and S. Mitchell reported that the stopes and all other points of operation were equally as good as at last meeting.

At Wheal Ludcott meeting, on Dec. 9, the accounts showed—Balance from last audit, 103½. 12s. 11d.; ores sold, 2077½. 18s. 8d.—2131½. 11s. 7d.—Mine cost, 1301½. 16s. 1d.; merchants' bills, 159½. 18s. 7d.; lords' dues, 164½. 18s. 5d.; leaving credit balance, 144½. 18s. 6d. There was a profit upon the four months' working of 41½. 5s. 7d. The accounts of four months' costs to end of Sept. have been met by three months' sales of ores. Capt. Knapp was invited to give up his connection with Wheal Mary Ann, and to take the whole superintendence and agency of this mine, at a salary of 100½. per month, and he being present, and having accepted this offer, was appointed accordingly. Capt. R. Knapp and J. Hubbard reported that they had sampled during the last quarter 80 tons of crop ore and 55 tons of second quality, the produce of six months, and hoped, from the improved state of the mine, to be able to sample 100 tons of crop ore and about 35 tons of second quality during the present quarter.

At the South Europe Mine meeting, on Wednesday (Dr. Lawrence in the chair), the directors' report, together with that of Mr. Petherick (who has recently inspected the mine), were read. The valuable property called the Bultion, situated within five miles of the town of Valverde, approved by Mr. Petherick, the directors had succeeded in purchasing. The produce is—Pure copper, 4½; iron, 400; sulphur, 4983½; matrix and loss, 4200=100000. Mr. Davenport, of Oxford, was elected auditor. The report, of a very interesting character, together with the detailed report of the meeting, will be found in another column.

In Foreign Mine Shares, during the past week great activity has prevailed, and prices for the most part have shown an upward tendency. The Port Phillip and Colonial have received advices of a very satisfactory character from Melbourne, dated Oct. 15, from which it appears that quartz crushing at Clunes had been going on very satisfactorily during the month of September (five weeks), the quantity of quartz crushed being 1674 tons, yielding 2114 ozs. 9 dwts. of gold; 1458½. 18s. 8d. had been received for crushing; the expenses were 1927½. 6s. 10d.; leaving a profit of 2226½. 5s. 10d. They had melted 35,575 ozs. of gold during the same time, making a total of 339,341 ozs. of gold melted during the nine months. A remittance of 1500½. have been received by their manager, thus completing the 5000½. required for the dividend. The shares were in great demand on Wednesday, and sales were effected as high as 16s., but have since declined, the closing prices were 11s. 6d. to 12s. 6d. One of the most prominent features of the week has been the extraordinary demand for St. John del Rey shares, which have been freely dealt in at an advanced price, 11½ to 12 having been easily obtained. The shares of the North Rhine Copper Mining Company of South Australia have been dealt in daily 2½ prem. From Colonial mining districts, news has been received, the shares are quoted at 3s. to 4s. The Clarendon Consolidated report states that the engine-shaft had been sunk about 7 feet below the 58, and that in the 48, west of engine-shaft, the appearance of the mine had improved, and shares have been dealt in at ¾. Ores from the Rio Grande have been assayed, and have produced 45 per cent. of fine copper and 49 ozs. of silver to the ton. The United Mexican report of Nov. 13 states that, notwithstanding the expense of sinking the new shaft, the mine continues to give fair profits. During the fortnight preceding the date of the report 950 carags had been sent to the lanchados; the shares are quoted at 2½ to 2¾. A copper mine of exceedingly great richness has been found at Bundaleer, South Australia; it has been named the Wheal Sarah, and specimens of the ore taken a few feet below the surface have been assayed, the produce being 80½ to 55 per cent. The New Grand Duchy of Baden Company reports that the lode in the engine-shaft at Schindler Mine was worth about 30½. per fathom, and that the stopes in the back of the 34 were worth about 25½. per fathom. An extraordinary general meeting of the Rosie and Canada Lead Company is called for December 20. The Llanrhys Lead Mining Company have recently received advices, stating that the Arragones Mine, belonging to and worked by the Spanish Government, is full of water, but it appears the Llanrhys and Rosie Mines are in any way affected thereby; the shares of the Llanrhys are quoted at 8½ to 9½; Rosie, 1½ to 1¾. Advices have been received by the Central American Company, dated Oct. 30, stating that in No. 2 stope, San Domingo, at the junction with the main lode, the branch is 5 in. wide, and, at least, 100½. per fathom. In No. 1 stope, at the back of this level, it is worth for silver ore 90½. per fathom; and in No. 2 stope, joining the before-mentioned, and in

the back of the same level, the lode is worth for silver ore 180½. per fathom. The quantity of rich ore raised during the month was upwards of 27 tons, and estimated to be worth 1500½., the cost being only 500½.

From Leeds, our correspondents (Messrs. Gledhill and Co.) state that the mining market is much the same, there being very little improvement. The Keld Head Mine continues to produce large quantities of lead; they are at present smelting about 50 tons per week, and have been for some time. This is answering well for the fortunate shareholders, who are deserving of praise for the spirited manner in which they have developed and worked the mine. It will also do well for Lord Bolton, who receives one-sixth of the produce for dues, which will amount in the course of a year to a very handsome revenue. He is the lord of the royalty of the Wet Groves Mine, which lately cut rich. Coniston Out Moor Mining Company (formerly called the Mossdale Mining Company) is situated near Grassington, in the Skipton district. In this mine they have discovered lead in the north vein, which is very productive, and are now raising large quantities of ore, and expect to pay a dividend shortly. We have visited Pateley Bridge district, and find there are some very promising and paying mines. The Sunny Side Lead Mining Company, who are working the Cock Hill and other mines, are at present producing large quantities of lead, and paying handsome dividends. Near to this is the Old Prosperous and Providence Mining Company, which made great returns. They raised 180,000½. worth of lead out of a very small space of ground in a short time. These mines are at present being reopened; they are drained to a certain depth by the wonderful level. Adjoining these mines, and near to the Sunny Side Company's mines, a new company is being formed, called the Nidderdale Mining Company (limited), having an extensive set of very valuable mining ground, held under different royalties, which has been obtained by great labour, perseverance, and expense, in which there is a level about 1300 yards long in the Rough Grit, and upon the bearing vein to the Holebottom shaft, to within a short distance of the boundary of the adjoining mines, which produced so much lead, and such great results. The 1300 yard level will drain the mine, and enable them to work (when driven forward) without the aid of machinery. It is decided to make a railway from Sturbeck to Pateley Bridge, which will add greatly to the mineral wealth of this district, by bringing the facilities of transit and cheap carriage almost to the very doors of the mines, and likewise bring out many other valuable products, which could not otherwise be brought to the market, as well as open a new, and we may truly say a most interesting, lovely, and delightful field for tourists. There are some beautiful remains, called the Borranin Hoeks, within a short distance, and many other attractions in this beautiful valley, which can be seen for many miles.

MEXICAN AND SOUTH AMERICAN COMPANY.—On Monday, a most important sitting was held before the Chief Clerk of the Master of the Rolls, being the day appointed for the decision of 30 Linklater's cases. After waiting a considerable time, the case of Mr. W. Blanford, of Boulevard Street, picture-frame maker, was called on. Mr. TRAVERS SMITH (of Messrs. Avery, Travers, and Smith), on behalf of the official manager, called upon the chief clerk to place Mr. Blanford on the list of contributors. Mr. LINKLATER said, as he knew the decision must be against him, he intended to except to the jurisdiction of the Chief Clerk, and carry the case at once before the superior Judge. The CHIEF CLERK having refused to admit this, Mr. T. SMITH proceeded, and called for Mr. Croysdill, the accountant to Messrs. Linklater, with a view to his cross-examination, but he was not there. Mr. Smith said the official manager had not considered it necessary to answer the allegation of Mr. Croysdill, as the official manager disavowed from most of the statements of Mr. Croysdill. If the allegation made were true, he considered it afforded no grounds to enable Mr. Blanford, at that late moment, to set up such charges to relieve himself from his liability for the debts of the concern. In the course of a long and very able argument he cited a number of cases in support of the application he made. Mr. COMPTON SMITH, for the representative creditors, followed on the same side; and Mr. LINKLATER, in consequence of the course he had taken, did not enter upon his case. The CHIEF CLERK then decided that Mr. Blanford must be put upon the list for the whole number of his shares, old and new. A like decision was given in Mr. Linklater's other cases, and his clients put upon the list, with the exception of Mr. Witherby, who had sold his shares. Mr. LINKLATER required of the Chief Clerk that Mr. Blanford's case should be carried before the Master of the Rolls in chambers. Objected to by Mr. TRAVERS SMITH, on the ground of costs, as he maintained Mr. Linklater should apply to the courts. The CHIEF CLERK decided that Mr. Linklater was entitled to be heard in chambers. Mr. SEWELL (of Messrs. Sewell, Fox, and Sewell) claimed to be heard on behalf of Mr. Schneider, in reply to the unfounded statements of Mr. Croysdill, but was told that he was not entitled to be heard. Mr. SEWELL then said that he gave notice that Mr. Schneider would answer the statements made.

MINE TAKE-NOTES.—In the Vice-Chancellor's Court, on Wednesday, the case of Balcombe v. Woodford, was heard; but the bill was dismissed, without costs, on the ground that there was no offer containing all the terms of the alleged agreement, nor if there were was there an unqualified acceptance of it; and, according to the rules of the Court, with respect to specific performance, it was impossible in such a state of things to give relief. It appears that in April, 1856, a take-note was granted by Sir J. G. Woodford, the lord of Saltwater Park Mine, near Derwent Lake, to Messrs. J. B. Balcombe, Samuel Weatherley, Thomas Fuller, and John Frank, who constituted themselves into a limited company, under the title of the East Goldscope Consols Mining Company, which it appears Sir John Woodford did not recognise as having an interest in the take-note, and having felt himself aggrieved at the behaviour of Captain Frank, took advantage of the clause of forfeiture in consequence of which the mine not having been properly worked. It appears, however, that Sir John promised to grant a new take-note upon return of the former one, on condition that Capt. Frank should not be one of the parties; after possession of the first-granted note had been obtained the granting of the second was refused, and we cannot help thinking that the decision given by Vice-Chancellor Kindersley affords an ample proof that law is not always justice.

SOUTH DURHAM AND CLEVELAND IRON TRADE.—The state of the blast furnaces of the district was as follows on December 1:—

Place.	In blast.	Out.	Total.
Easton, Bolckow, and Vaughan	8	2	10
" Clay Lane Company	0	2	2
" Samuelson and Co.	3	0	3
Cargo Fleet, Cochrane and Co.	2	2	4
" G. Wilson, and Co.	3	1	4
Middleton, Bolckow and Vaughan	3	0	3
Port Clarence, Bell Brothers	5	0	5
Stockton, Holdsworth and Co.	2	1	3
Norton, Warner and Co.	2	1	3
Darlington, South Durham Company	2	1	3
Witton Park, Bolckow and Vaughan	4	0	4
Stanhope, Weardale Iron Company	0	1	1
Towlaw, Weardale Iron Company	4	1	5
Consett, Derwent Iron Company	16	2	18
Total	54	13	67
Total, November, 1858	52	15	67
" June "	49	14	63
" January "	44	18	62
" November, 1857	55	7	62

Messrs. E. Jones, Dunning, and Co., are commencing new blast furnaces at Cargo Fleet. Messrs. Wm. Jones and Co. are also about commencing extensive chemical works at the old brick-yard, and near to the junction line of railway.—Stockton and Hartlepool Mer.

## WEEKLY DIARY.

MEETINGS.	
MONDAY	Alfred Consols ..... On the Mine.
	Nouveau Monde ..... Paris at 12.
	Rosie and Canada ..... 1, Pinners-court, Old Broad-st.—at 2.
TUESDAY	East Pool ..... On the Mine.
	Nantoes and Penrhyn ..... 117, Bishopgate-street—at 12.
	Wheal Zion ..... 5, Addam's-cot., Old Broad-st.—at 2.
	Devon and Courtenay ..... On the Mine—at 12.
WEDNESDAY	South Carn Brea ..... 80, Threadneedle-street.
	North Basset ..... 50, Threadneedle-street—at 2.
	Abbey Consols ..... 33, Great Winchester-street—at 1.
	Wheal Sidney ..... Frankfort-street, Plymouth—at 12.

Secretaries and pursers will oblige by forwarding notices of forthcoming meetings.

## LEAD ORES.

Sold on November 21.			
	Tons.	Price per ton.	Purchasers.
Llanfyrnach	10	£12 0	Sims, Williams, & Co.
Sold on December 9.			
Mines.			
Wheal Ludcott	40	£19 8	Locke, Blackett, & Co.
ditto	55	7 3	Newton, Keates, & Co.
Sold on December 13.			
Foxdale	100	£15 3	Panther & Co.
Kewlick	25	13 1	W. J. Cookson & Co.

## BLACK TIN.

Sold on November 22 and 29.				
	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
Boscean .....	0 3 11	£72 15 0	£499 10	8—J. G. Tyrie.
ditto .....	0 2 8	72 15 0	16 12	6—Boltho & Sons
ditto .....	0 8 2	60 0 0	26 4	0— ditto
ditto .....	0 10 2	68 2 6	37 8	1—Daubuz.
ditto .....	0 10 14	69 0 0	24 18	7— ditto
ditto .....	4 17 1	72 15 0	333 15	6—Boltho & Sons.
ditto .....	2 10 23	57 8	143 0	0— ditto
ditto .....	4 1 0	72 15 0	168 4	6— ditto
ditto .....	6 10 0	72 15 0	472 17	6— ditto
Sold on November 30.				
Pedn-an-drea ....	7 19 1 20	£75 10 0	£601 16 10	10—Bisace Co.
ditto .....	12 14 0 25	68 15 0	873 17 10	ditto
ditto .....	4 8 2 18	58 0 0	257 2 3	ditto
Sold on December 11.				
St. Austell Cons. ....	12 11 2 25	£65 0 0	£865 5 10	10—Enhoven & Sons
ditto .....	0 8 1 3	56 0 0	23 3 6	ditto
Sold on December 15.				
Kittv (St. Agnes). 16	1 2 23	—	£1064 1 4	—



# THE PROGRESS OF MINING IN 1857, BEING THE FOURTEENTH ANNUAL REVIEW.

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## Notices to Correspondents.

•• Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

**COPPER SMELTING.**—Being an old subscriber to your Journal, and a shareholder in a large number of Cornish copper mines, I am naturally anxious to ascertain whether it is really practicable for Cornish mines to smelt their own ores. I have carefully read Dr. Clarke's paper, the letter in your last Journal, and the articles on the manufacture of copper; but all these are simply historical, no information being given as to whether the processes have succeeded, or why they have failed. If some of your correspondents who are practically acquainted with copper smelting would undertake this, I think their communications would be highly interesting to mine adventurers generally.—E. S., Chelsea, Dec. 16.

**REVISION OF IRON ORES.**—In the discussion at the Society of Arts, consequent on the able paper read by Dr. Hyde Clarke, Mr. Arthur Phillips stated that the humid process in Norway was practised at Fula by Mr. Sinding, a Norwegian copper smelter. With all due deference to Mr. John Arthur Phillips's great reputation, I beg to state that process was carried out at Fuldal. Mr. Sinding was not a copper smelter, he was originally a student at the Government establishment of Kongsberg, afterwards passed his examination as Candidatus Mineralogiae at the University of Christiania with honours. He was then dispatched to Freiberg, in Saxony; from thence he returned to Kongsberg, where he reconstructed the silver works there. At present he is one of the principal Bergmeisters in Norway. I was only surprised at not hearing Mr. John Arthur Phillips acknowledge that the first notice of the process appeared in the *Mining Journal*. As a practical man, and somewhat acquainted with these matters, I can affirm publicly was afforded by you.—CINNABAR-DANUS.

**WHEAL CHARLOTTE.**—I have looked carefully over the "Charlotte" report, which confirms what you told me—that there is a good prospect of these shares ultimately holding a high position in the market. I see "boiler and fixings" included, at a cost of £179; this expense is, therefore, not to be repeated, I suppose, and it brings the working expenses down to about £501. per month, for returns of, say, 8500l., or 9000l. per month, which I suppose may be reasonably expected. In this case the mine should pay, at least, 5500l. or 6000l. per annum in dividends, and say, according to my calculation, that it is now selling for three years' purchase only, it should be more than good.—B.

**LADY BERTHA.**—Carter's mine seems to be improved, and, according to the agent's report of last week, was producing 9 tons of ore per fm. Now, Sir, 9 tons of ore per fm. for a common mine to produce is very high, and there must be an extraordinary lode. Would Capt. Metherell inform us what length he carries Carter's mine?—A MINER: Carmarthen, Dec. 14.

**OBSTRUCTIONS AND ANNOYANCES TO MINERS BY AGRICULTURISTS.**—In last week's Journal there is a letter from Mr. George Henwood, with the above heading, which is, of course, calculated to attract the attention of all persons who, like myself, get their living by the culture of the soil in a mining country. I was, however, much relieved on reading it to find that there really was no definite charge against an agriculturist; but a statement of Mr. Henwood's encounter on a bleak mountain in Wicklow with a wild Irishman, and also an account of a dispute he had not long since with a Cornish miller. Now, Sir, judging from the tone of the letter throughout, I have come to the conclusion that the wild Irishman had the best of the fray, and at the same time, by some mysterious influence, must have turned Mr. Henwood into an Irishman, or he would not have made the bull he has by the heading of his letter, since in reality it applies only to a squatter on a "bleak mountain side and complete morass," and a grist miller. As an agriculturist, I tell Mr. Henwood his remarks about Hodge, or obtuse minds, &c., merely create a smile; for my opinion is that after the encounter on the moor he must have returned to a most indigestible dinner, which should have been followed by antibilious pills, instead of which he proceeded to pen his letter to you.—A FARMER OF EAST CORNWALL.

**MINING IN IRELAND.**—I perceive that this subject is being brought before the public again. I will not attempt to analyse the reasons which at this peculiar period have drawn attention towards the mineral resources of the sister country. It must be presumed that soon after the turn of the year we shall hear of various companies being started on notice for the purpose of developing the metallic deposits of Ireland. There can be no question but that many of these, if properly and energetically worked, would afford remunerative returns. The Knockmahon Mines are a proof of this; and, in point of management, they can challenge comparison with any elsewhere. Unfortunately, however, the majority of Irish mines which have been managed in London have proved anything but fortunate to their proprietors. I will not refer to the West Cork Mining Company, and the expensive and tedious litigation which that was involved in, but will allude to more modern times, and enquire where are the Cooheen, Kenmare, Dhrugh, East Anagh, Knockraha, and Oola Mining Companies. The results, as we know, have been that the time of the shareholders has been delayed until all the capital was expended, and then the mine has been abandoned. In the last-mentioned case—the Oola—this was but a few months since that the engineer was settled with for erecting the engine. When that was put up it was stated there was no ore, although the agent almost immediately after his arrival, in January last, stated that they had ore to the value of 1000l. at surface, and now the property, I am told, has been sold to the ground landlord for the sum of 3000l.; this is one sample of Irish mining. If we are to mine in Ireland it must be under the superintendence of practical and trustworthy agents, with an efficient and honest committee of management at their head. The reports upon which individuals should invest their capital should be drawn up by men of practice and integrity, and not by any of that tribe who receive a percentage according to the public bite at the book which has been bated by the inspector, whose remuneration depends upon the credulity of those who put faith in glowing descriptions, which, in too many instances, are only gross exaggerations of the truth, and tend to do more permanent injury to legitimate mining than a plain unvarnished tale of the capabilities of the locality, and what it was really worth. If mining is to prosper in Ireland it must be preceded honestly, or it had better be left alone, and the other resources of the country be further prospected by those who can see with their own eyes, and not be at the mercy of others, who, if they do not always avail themselves of the suggestions, are too often guilty of the suppression veri.—E. B.

**IMPERIAL BRAZILIAN MINING ASSOCIATION.**—The historical account of the transactions of this company, which I promised to send you, I intend deferring to a future period, in consequence of the recent negotiation for the sale of the blacks, which was considered conclusive, having been again broken off. Mr. Schofield, one of the directors, has been out to Brazil, with full powers to settle the affairs of the company, but without success. The cause of the recent negotiation having been broken off was, I believe, in consequence of some "diplomatic difficulty." The patience of the shareholders I should think is nearly, if not quite, exhausted, at seeing their splendid and valuable property, both in lands and slaves, so mismanaged.—AN OLD OFFICER OF THE COMPANY.

**TOLVADEN MINE.**—I am a shareholder in this mine, and wish to know when and where the next meeting is expected to be held; also, if the directors meet monthly to pass the post-sheet? As myself and several other shareholders are much in the dark as to how things are going on, and we have but little information as to the value of the lode in the 30 ft. level,—we do not even know if the meetings are held at intervals of three, four, or six months,—an answer to these enquiries will oblige—MALACHITE.

**LOW'S PATENT SMELTING PROCESS.**—I have been reading an article in your Journal from Mr. Low, stating that he has reduced quartz by his patent process with the greatest success. I have also been reading over his patent with great care, and I must confess that I can see nothing in it but what has been well-known for the last fifty years. I have also been referring back to your Journal, in which I find several statements from Mr. Low, giving assays of Welsh and other quartz, averaging from 2 to 4 ozs. of gold to the ton of quartz. As these statements are published by Mr. Low's authority, I am unable to understand how it is that quartz containing so much gold should remain so long without being converted into sovereigns, if only in a small way as a beginning. Surely Mr. Low can find some capitalist in the City of London to work his patent, if he can only obtain a title of his assays by his smelting process.—W. E. GAINE: Dec. 14.

**BLEND.**—In the Journal of Nov. 6 there is a notice of the sale of three lots of blend from the Minera Mine. I am desirous of knowing the percentage of metal in this blend; and should feel obliged for any particulars that may be communicated.—W.

**ST. JOHN DEL REY MINING COMPANY.**—In your report of the meeting of this company, in your last Journal, you state correctly that Mr. Jago enquired whether the new superintendent (Mr. Gordon) was capable of going underground. As such a question might induce persons conversant with mining to infer that my enquiry arose from ignorance of the general duties required of a superintendent of such an establishment as the St. John del Rey Mines, I beg to state that such question was asked by me after I had elicited from the late superintendent, who has just returned from the Brazil, that during his management, embracing a period of six years, he had twice visited the interior of the mines. Comment on the management of our valuable property is superfluous.—E. W. S. JAGO, upwards of 23 years a proprietor in the St. John del Rey Mining Company: 19, Cheyne-walk, Chelsea, Dec. 14.

**ST. JOHN DEL REY MINING COMPANY.**—In the copy of the report of the directors, read to the meeting on the 10th inst., as it appears in last week's Journal, there is an error in the date on which the financial statement is made up. It should be Nov. 30 and not March 30. The word "limited" should also be the last word in the name of the company.

**QUARTZ REDUCTION COMPANY.**—Correspondents complain of the delay with respect to the promised general meeting of this company. It is a matter of more than ordinary interest, inasmuch as the question of gold production, which is now arresting so much attention, will be brought prominently before the public, and the experiments made to test Mr. Squire's process be made known officially. That the issue is most satisfactory has already been shown by letters in our columns, but it is important to have the details promulgated authoritatively. It will also be interesting to have a meeting, at which, no doubt, Mr. Johnson, Mr. Clement, and Mr. Squire will have something to say. The delay, it is said, arises from the absence of advices from California; but although this fact is of importance to the general business of the company, we do not see why it should retard the settlement of the question of gold production, as influenced by the process used by Mr. Squire. The difficulty, therefore, is not with this gentleman. It is the Quartz Reduction Company which is to blame.

**TREBENET.**—I have already suggested twice through your Journal that Mr. Emor should produce the books kept during the last working of this mine, and take from them the exact amount paid in dividends, which would at once set all discussion on the point at rest. Why does he not do so?—W. T.: St. Austell, Dec. 15.

**PREMIUMS ON COPPER SMELTING.**—Mr. Murchison, at the Society of Arts, the night Dr. Hyde Clarke's paper was read, suggested that the council should offer premiums for improvements in copper smelting. I would propose that they should grant a premium to any of the many patentees who have projected several inventions under that head, whose names it would be here invidious to mention; that a medal should be awarded to the first of these gentlemen who practically demonstrated the feasibility of his improvement. Many of these inventions have been offered to the Swansea smelters, and those abroad, but they have been found, where they could be shown, so expensive as not to be of the slightest utility; but in the majority of cases they failed at the first starting from sheer and utter impracticability. Metallurgy and mining are peculiar arts, inasmuch as we are constantly seeing persons professing them who have no practice in either, but who force their way either by assurance or self-deception, and in many instances a combination of both.—S. THOMAS.

**GREAT WHEAL NEPTUNE.**—Some time since it was proposed that Wheal Neptune was to be re-worked. It closed, I believe, from a law-suit, or too heavy debts. Can any one inform me if the mine is in work, or about to be worked?—A SUBSCRIBER.

**WHEAL TALLACK.**—This mine is an instance of what injury may be effected by private pique. According to the report of the resident agent at the time the mine was abandoned, the prospects were of a more than satisfactory nature. The question at issue at the last meeting held was not as to the character or position of the lode; this was a subject which was not enquired into; the struggle was who was to be the local purser in Cornwall. A number of proxies decided this, and as a gentleman from Bath, whom I believe had no knowledge of mining, was out-voted, his friends refused to pay any further calls. The opposite party then would not prosecute the undertaking, and I believe it is now not only in liquidation but likewise in litigation. This mine is by no means singular, and there are several other good properties I could point out which are in a similar position. While these things are of such frequent occurrence we must anticipate that many persons who would become speculators in mineral veins, when once they have had such experiences as these, will be deterred from further mining adventures.—T. L.

**PENGOENNA, NORTH WHEAL ROBERT, EAST WHEAL RUSSELL, &c.**—We are informed by Mr. A. Emor that his father is absent from Wiveliscombe, and that on his return the above subjects will receive attention.

**EAST WHEAL RUSSELL.**—I heartily approve of the remarks in your City Article of last week, and I trust steps will be taken to bring to book those who make a business of running shares up and down to suit their speculative objects. Really some of them should be made an example of, and I hope they will be, for—

—CENSOR. Dec. 14. Well deserves to go to prison.

**EAST RUSSELL, AND THE JOBBERS.**—Your remarks in the City Article of the Journal last week are very correct and well-timed. You may not know that great efforts have been made to knock down the shares of this mine for private purposes. Some time ago a good many shares were sold by parties who had not got them, for delivery in two or three months from that date; and I am told that one jobber at Tavistock alone has to supply 100 at 5/6d. before the end of the present month. You see, therefore, the interest which these people have in propagating all sorts of unfavourable rumours, in order to bring the shares down to a price to prevent a loss to them, or even to make a profit. It is in this scandalous manner that the property of bona fide investors is depreciated.—Q.: Dec. 13.

**THE JOBBERS.**—The system of jobbing is becoming so common, and is leading to so many disastrous results, shares being sent up and down, without reference to honesty, in such a wholesale reckless way, that it is high time some active measures were taken to stop the nefarious proceedings of those who do not scruple to adopt such a course for their personal objects. The parties alluded to are a disgrace to mining, and do incalculable injury to its legitimate development. In your City Article of last week you state that the question has been mooted, whether there be not a remedy against the practice? and I am exceedingly pleased to find that the committee of East Wheal Russell have taken the initiative, and have set an example which I heartily trust will be followed in all similar cases. Of course, no one can object to expressions of opinion on the prospects of mines by those who are competent to give them; but it cannot be tolerated that persons are to misrepresent and distort facts, to suit their private speculations, or to gratify their personal feelings. All I wish further to say at present is, that I earnestly hope the step now taken will not be lost, either by any lukewarmness in following it up, if necessary, or by any hesitation in others adopting the same course, where the circumstances call for it.—A PROMOTER OF LEGITIMATE MINING: Dec. 16.

**THE JOBBERS—EAST RUSSELL.**—I have received a circular from the committee of East Wheal Russell, which deserves your notice. I have more faith in the remarks of your City Article than in those of the individual alluded to. I have not parted with any of my shares in East Wheal Russell; but as it is very probable that some timid or inexperienced holders may have been led to part with their shares, in consequence of the assertions which are being made, I would express my cordial approval of the resolutions of our committee; and I earnestly trust that the initiative which the members of the committee have so commendably taken may steadily be followed in all other cases of an analogous kind, in order that the interests of bona fide shareholders may be protected from the intrigues of jobbers. It is most pleasing to me, and to many of my friends, who are well-wishers to mining enterprise, to witness the efforts that are now being made by all respectable persons connected with it to put down the many obstacles which prevent it from obtaining that confidence with the public at large which it intrinsically merits; and I earnestly trust that success will ultimately attend the good cause in which they are engaged.—A SHAREHOLDER: Dec. 16.

**MAIN DRAINAGE OF LONDON—PURIFICATION OF THE THAMES, &c.**—We have received two additional communications upon these important subjects from Mr. W. H. JAMES, C.E., which want of space prevents our giving in this day's Journal, wherein he proposes to effect the main drainage of London and the purification of the Thames as far as Woolwich Reach for two millions sterling, upon a remunerative principle, by availing himself of the entire water-power of the Thames and its tributaries as far as Woolwich Reach, as well as of the tidal power beyond it, as far as practicable, through the medium of large turbines, float wheels, and other hydraulic apparatus, for performing all the mechanical operations necessary for the drainage of the low-lying districts, the pumping of sewage from the low level sewers into the Thames, when maintained at any desired level, above a weir formed across it in Bagby's Reach (with locks thereon for the passing of vessels), there to be discharged through sluices into Woolwich Reach, never more to return, after having been desorbed by lime in the Thames itself; or, otherwise, for forcing or withdrawing it through cast-iron pipes (when exempted from all water drainage, street sewage, and other extraneous matters) into well-covered cesspools, situated upon high ground at the very outskirts of London, to be thence distributed through stoneware pipes, by its own gravitation when at lower levels, or by windmill power at higher levels, into covered pits in the surrounding agricultural districts, for sale or utilisation, or otherwise into covered cesspools on the banks of the Thames, at any suitable localities between Bagby's Reach and Gravesend, to be thence transferred into close-decked vessels for exportation. And also for the very economic propulsion of passenger carriages between the bridges, along elevated rail or carriage ways, which he proposes to form upon the advanced banks of the Thames, or along any extensions thereof, in either direction. Also, for the working of cranes upon the numerous wharves, but more especially for the raising of large quantities of water into high level reservoirs; for actuating smaller turbines, or other hydraulic machinery, at lower levels wherever required; to afford the metropolitan public a cheap and readily available power, independent of steam, which high level reservoirs of water, he considers, might also be advantageously used for supplying mains, for extinguishing fires, and occasionally for condensing smoke by spray jets of water, and for producing the residuary products into the sewers, to assist in deodorizing the sewage and sewage gases, and as a valuable addition to the former when used for agricultural purposes. The full details and advantages of which propositions we hope soon to publish.

**Errors.**—In last week's Journal: Wheal Charlotte, page 822, for the lode in the "40," read "50." Round Hill lead sale, page 823, for "131. 5s. 6d.," read "131. 15s. 6d.;" the same in report, page 821.

•• With the MINING JOURNAL of Dec. 4 we gave a SUPPLEMENTAL SHEET, which contains—Dr. Hyde Clarke's paper "On Copper Smelting," read at the Society of Arts; Notes on Metals and Mining—No. IV.; Cornish Mine Photographs—"Redruth Market Day;" Cornish Mining Maxims; Forest of Dean—No. II.; Mineral Legislation in France; Waterford and Kilkenny Railway; The Iron Trade in Sussex; London to America in 110 Days—Iron Shipbuilding on the Tyne; Railways in Spain, &c.

## THE PROGRESS OF MINING IN 1858.

Now preparing.  
By J. Y. WATSON, Esq., F.G.S.,  
BEING THE FIFTEENTH ANNUAL REVIEW,  
And will be published in a SUPPLEMENTAL SHEET to the MINING JOURNAL of Jan. 1, 1859.

It being the object to make the Annual Resumé as perfect as possible, agents and pursers will oblige by forwarding, either to Mr. WATSON, St. Michael's-alley, Cornhill, or to the Journal office, a brief account of their mines, with any other particulars they may possess, to be embodied. We court information, and shall gladly avail of all that is communicated.

## THE MINING JOURNAL

### Railway and Commercial Gazette.

LONDON, DECEMBER 18, 1858.

One of the greatest objections in general made against independent copper smelting is the enormous capital required in order to carry out works profitably; it is further argued that there must always be a great quantity of capital sunk in the bottoms of the several furnaces, and instances are adduced of the value of copper after a series of years contained in these. Some of the persons who have advanced this argument are practical men; and probably, in corroboration of their theory, can produce evidence of isolated cases, where after a refinery bottom has lasted for a series of years it has, when broken up, turned out very rich for copper. At the same time, it has been forgotten that where such has been the fact, consequently less expenses have had to be encountered in their construction; also, by some it has been stated that only a peculiar species of sand could be employed, and that must be brought from England. We can well imagine that if this is carried a long distance the freight must be correspondingly heavy, and considerably in excess of the value of the article to be carried; practical men know, however, that for this there can be substitutes employed which may probably be found in the country, or not far distant. Sea sand can be so calcined that it may be of some utility, at least in the tapping beds and forms for the roaster; and we are told that quartz ground and calcined will make a tolerably desirable bottom, which may last for some little time. It may be here urged that if such were the case a great deal of the iron would mix with the bottom, so as to form a silicate of iron, and that consequently with some ores an imperfect slag would be obtained. To the practical man, and here we do not mean the working smelter, but the person who, thoroughly acquainted with all the operations by constant and unwearied observation, has studied the nature of the various ores and their combinations, and thereby arrives at a knowledge of the several fluxes or mixtures which are necessary to bring about a favourable result, consequently when a difficulty occurs abroad to a person so qualified, his practical abilities enable him to obviate it. The operative smelter, we are aware, has no knowledge of the chemical combinations or changes that occur during the process, although he is able to a most astonishing degree to carry out the most minute operations, provided he has the necessary materials to conduct his work. Those who possess such a knowledge are very rarely selected to erect smelting-works abroad; a staff of working smelters is generally obtained from Swansea, and these not often the best workmen, or of the most steady habits. These are generally individuals of very intractable character, requiring on the part of those in authority over them considerable tact and management. Very often they are unable to converse in any other language than their own Cornish vernacular. Who is the gentleman appointed to superintend them? Generally some connection of the directors, or friend of the secretary, who in all probability has never seen a smelting-works before, or any other ores than those contained in the mineralogical collections of the metropolis. He may be a tolerable accountant, have a smattering of the language of the country he is going to; he is forthwith dubbed commissioner or managing director. Furnished with letters of introduction, he arrives at Swansea, parades through two or three establishments, asks a few questions, and then returns to London to embark for his destination a perfect mining and smelting manager. The monopolists hear of his appointment, and chuckle in their sleeves, being perfectly aware that his ignorance will soon involve the company in difficulties, and that in the course of eighteen months or two years the ores, as well as the imperfectly reduced regulus he has attempted to manipulate, will again revert to the old channel, and another salutary lesson be given to those presumptuous individuals who have dared to raise their own ores, and afterwards had the audacity to attempt to smelt them. Establishments conducted in such a manner must inevitably result in failures, however consummate may be the theoretical knowledge which directs them in London, or at the scene of operations.

There are two copper companies in England, totally independent of the large firms, who manage their business, and return a profit to their proprietors. One of these is a close corporation, and dating back so far as the period of Queen ELIZABETH; this, the Mines Royal, hold a yearly meeting in December of their shareholders, but the proceedings are strictly private. The other, the Company of Copper Miners in England, chartered in 1691, is a public company, and the shareholders are annually called together the first week in April; a statement of accounts is placed before them, as well as a review of the past year's operations. Both of these establishments have been successfully carried on; one of them, the Company of Copper Miners, a few years since, through making imprudent advances to some of the directors and others, was in temporary difficulties, but during the whole of that time the works were never impeded, but carried on by the mortgages in possession.

With regard to the quantity of copper said to be in the bottoms, it must be borne in mind that in each of these the saturation of a few charges is necessary, in order that they may be in working order; this is, however, not lost, but must be considered as stock in trade, and as such is always calculated. The slags from the ulterior process, as we are aware, have all again to be re-smelted in the prior operations; some of them are of great value, especially those which come from the refinery and roaster. There must always, in a properly conducted smelting establishment, be a good stock of ores on hand; as these pass from the calciner each manipulation makes them more valuable, the capital, therefore, cannot be considered as lying dead any more than it is in another business where the raw material is to be converted into a useful and merchantable article.

Much has been stated of the little progress copper smelting has made since its first introduction into this country; there are many improvements now in use at Swansea which are not generally known, and within the last few years some considerable modifications have been made in the furnace, and the smelters have availed themselves of such ameliorations as their vast practical experience has suggested. We have often drawn attention to the various projects which have been devised, and the patents taken out for improvements in copper smelting, both in the wet and dry way; and without wishing to check the ardour of fresh discoveries, we must candidly state that several of these new inventions have been but little german to the purpose. Dr. PERCY, in his concluding lecture of the Metallurgical Course at the Government School of Mines, observed "that the students must not imagine from what they had learnt there that they were competent immediately to take the charge of a large reducing establishment; the knowledge necessary to conduct successfully metallurgical operations could only be acquired through long experience and practical study. The theory of the subject would, no doubt, be of great utility to them, but without practice it would be comparatively unavailable."

In concluding these remarks, we hope that we have shown the causes of the failure of some of the smelting-works which have been established in foreign countries under British auspices; we could point out others that have prospered, and if an instance of success is required we need only point to the Elbe Copper Works, near Hamburg: the coals which supply this are brought from Newcastle and Sunderland, while the ores come from South America. Such high freights must add greatly to the expenditure, and if a profit can be returned under these disadvantages we can only conceive how much more so must it be under greater and increased favour-



able conjunctures. That smelting-works could be established successfully either in England or in other countries there no longer remains a doubt; but in order that any establishment should prosper they must learn this lesson from Swansea—that theory must be subservient to practice, the capital of the shareholders must not be wasted in frivolous experiments, ordered by inexperience and arrogance; and in order to lessen the cost, all that can be rendered available on the spot should be utilised, so as to avoid long freights, tedious delays, and other evils which are the general concomitants of inefficient management.

Among the many amiable eccentricities of **CÆSAR BORGIA** is enumerated one of a very significant tendency; it is, in fact, a matter of history, and as he never hesitated to practise it for state as well as private purposes, there can be no harm to his memory now to recur to it, for the mere purpose of instituting a rather pertinent comparison. This worthy was of a very speculative turn of mind, and eminently ingenious in promoting his projects. He was known never to mouth an assertion, or falter at any act of expediency; and this audacity of tone and action was in his instance the most successful disguise of real motives and intents ever adopted. But that which has given him enduring notoriety as a *virtuoso* was an antique ring—a gem of rather attractive brilliancy, which he ordinarily wore with great self-satisfaction and perfect impunity, but in his relation with others it was ever most perilous to those whom he honoured with his greatest intimacy. It was envied, and wounding the hand he grasped invariably killed all to whom he professed the blandest kindness and sincerest amity.

Further, be it known **CÆSAR** did all this most frequently for his own especial personal benefit, and never lost an opportunity of making the subtle means he possessed either proximately or remotely subservient to his interest. On the part of this wily Italian all was wilful—destruction never accidental; and history records him as having been eminently successful in thus obtaining an heirship, or suddenly dooming a troublesome individual to that future state for which he happened to be best adapted. All this, it need scarcely be told, did not tend to make society very desirable in his neighbourhood; and at last doubts and fears, forming the dense and dusky atmosphere of his position and policy, deterred alike the prudent few and reckless many from having anything whatever to do with him, or with the sphere in which he moved, although the latter was known to possess intrinsically good and rare advantages.

Now, it unfortunately occurs there are in our day **BORGIA**s who, less wilful in spirit, as we are charitably bound to assume, nevertheless, through irrational impulse and culpable indiscretion, inflict vital injury on the interests they most profess to guide and foster, and wound the honest hands by which those interests are supported.

Mining, we regret to perceive, has thus its destructives—we will say unintentional destructives—among those who would record themselves as its best friends; and while we confine ourselves to certain facts as they are presented to us, we leave the public to judge whether any analogy exists, however distant, between the Italian's intrigue, to which reference has just been made, and the incident now under discussion. *In limine*, however, we would observe, that our remarks are not to be understood as implying a wilful criminality in the party with whose conduct we are at issue. Let it be imputed to hastiness, temper, indiscretion—to anything, rather than to corrupt motives, although the evil consequent on either be the same; we have to deal with the matter before us as one involving a great principle, and one in which the future prosperity of mining in this country is deeply involved. This principle has now to be asserted, and there can be no shirking the question; no compromise of its importance; no shrinking, as regards its true nature and integrity, from that text which public opinion, ever severely, and never unjustly, applies when character, individual or otherwise, is arraigned and put upon its trial. With the battleground of the parties engaged our censorship cannot be identified. The mine in question is only known to us, as to the community at large, through official and authenticated reports, and upon them has been based a fair and favourable opinion of the undertaking. Nothing, it may be added, has as yet occurred to modify such an opinion. Its management has been for a considerable time carefully and equitably supervised, and the committee of gentlemen by whom the works are carried on, and the finances of the company regulated and dispensed, bears all the prestige of ability, integrity, and position; nor is the gentleman by whom a late report on the mine has been so boldly assailed less favourably placed in the social scale.

The start, then, for all concerned has been fair up to that point at which a mine share dealer, in the **MINING JOURNAL** of Dec. 11, made a statement rebutting that contained in the report sanctioned by the committee, and giving a version of the indications and prospects of East Wheal Russell calculated to damage the adventure in the estimation of the shareholders and of the public. To the allegation of the dealer the committee promptly demurred, and embodying a very indignant refutation of all he had written in reference to the workings, have this day advertised the same in our columns,—and now to the issue.

The first phase of the matter is the statement contained in the letter of Dec. 11, giving a circumstantial account of the failure of the mineral deposits in the mine to this extent—"Its real value depending on the cutting of the lodes rich in the 88, &c.; but the result has been the getting through the lode in the 88, and finding it to contain, with some exceptions, not saving work."

Now, for the second, or most important phase. The committee declare "that this statement is false, and without foundation, and was well known to be untrue by the said share dealer, before and at the time he published the same," &c. Here, then, are the allegation and response so opposed and so conflicting, that a casual reader might be at first sight disinclined to give implicit credit to either; but it is by no means difficult to arrive at a just and equitable conclusion; for the real facts of the case come, upon very slight consideration, into view, and impress conviction in favour of the respondents. The argument is at once terse, simple, and convincing. The dealer intimated an adverse statement, unsupported by a single proof, and as the best of men are said to be influenced more or less by self-interest, it might be imputed that he was to some extent actuated by a business bias, being so largely connected with the share market, and, of course, having his own and client's interest to attend to; but whether such means of advancing it would be legitimately and ethically right is a rather momentous question, to solve which the incident of his having been informed by a competent authority, previous to his publishing his letter, that there was "no foundation for such a statement," might afford a valuable assistance.

On the other hand, the committee of the mine have given, as a body composed of professional worth and great respectability, hostages to society for their honourable conduct and careful management. Having every opportunity of authenticating the representations of their agent, they publicly endorse his report, and with the laudable intent of protecting the shareholders against those market intrigues which have so frequently and so materially militated against mining, they instruct their secretary to enquire whether shares have been sacrificed through apprehension excited by the letter put forth, in order to immediately sue its author, and seek justice for a libel on their commercial character from a verdict of a jury. Again, their negation of the dealer's letter is open to the evidence of its value or worthlessness, which any of those who have invested capital in the mine can easily adduce by sending one of our numerous inspectors to the mine.

We confess this does not look like the act of men who fear investigation, and the *morale* which they have asserted in avowing their intent of prosecuting all persons who would trade in their stock by false representations, whether against or in favour of the character of the mine, guarantees at once the validity of such proofs as they have in their power to advance, and the veracity of every statement made by them, which may not be so materially supported. Looking at this case in every point of view, we cannot doubt it will end beneficially for the mining market. Such *canards*, whether wilfully or unwittingly vitiated, have done from time to time the most serious injury to the holders of stock, depressions and fluctuations in prices having been thus created by interested individuals; and we have known a panic excited in this manner, which has thrown the most intrinsically valuable shares a mere drug upon the market, when the mines represented by them were in an improved and most promising position.

This state of things has too long been an odium to mining, and must now be promptly and decidedly corrected. It must not be permitted that men who would shrink from vilifying private character, and stand upon a point of honour on not doing so, shall with impunity descend from such principle to recklessness—because without proof—impugn the character of well constituted and legitimate associations, and while recoiling from the infamy of private wrong, perpetrate injurious calumny against undertakings in which the public weal, and one of the most important industries of the country, are vitally interested.

As the matter now stands, the mine committee have done an act of great public importance. They have wisely utilised the power they possess to

defend on just grounds the interests confided to their keeping, and they have taken the legal initiative to arrest the evil of false reports, whether friendly or antagonistic, an evil which has hitherto very seriously injured mining enterprise.

We alluded a few weeks since to the prospect of a **MINING SCHOOL** being established in the western part of Scotland, and the subject appears to be creating great interest throughout all the mining districts of that country. All seem agreed that the first effort ought to be directed to the improvement of the underground overmen; to give to those operatives who, from force of character, have risen from the ranks that assistance which shall better qualify them for performing their onerous and important duties, and further aid them in the great march of self-improvement. The qualifications necessary for a man placed underground over others are various and important. He should possess tact to enable him to manage those under him, know the value of work, and be always prepared for those contingencies which are of constant recurrence in mining operations. They ought to be taught to map and dial their work, and to make such simple mechanical sketches as would enable them to show how economy might be practised, and in many cases unnecessary expenditure be avoided.

It is not our intention here to lay down any definite plan how such a school should be conducted; this must depend upon many causes, such as the encouragement it may receive in a pecuniary point of view, as well as the support to be obtained from the proprietors, and lastly those for whose especial benefit it is intended; and the former should evince as equally great a desire to forward so praiseworthy an object as the latter. If coal-owners had always on their property intelligent men, they would find that much of the expenditure that is now incurred through ignorance and neglect would be obviated, and we should not in so many instances have to report those fearful calamities (one of which we record this week) that are mainly attributable to the carelessness and recklessness of the present uneducated men who are employed in numbers of our collieries.

It must not here be supposed that we are advocates for a first-class education to be given to working men; nothing, we believe, would be more dangerous than this, as it would lead many to be dissatisfied with their lot in life: what we wish is, that they should receive such an education as would lead them to understand and appreciate the objects and phenomena they are daily in contact with, and to possess such a knowledge of mechanics as to know the first principles which govern them. What can be effected by intelligent workpeople, with but a smattering of education, aided by practice, and their own talent and application, may be learnt in the histories of **GEORGE STEPHENSON**, **JAMES WATT**, and others. The Bristol Mining School has proved of great utility, and there appears to be a greater desire for knowledge among our mineral than metallic miners generally. From the now almost universal diffusion of education among the Scotch people, it appears somewhat singular that hitherto as a class that of the miners has been neglected; this evil is now about to be remedied, and there is no question but now that such a practical nation as that north of the Tweed has taken up the subject that it will not be allowed to remain dormant, and we may, therefore, reasonably augur that in the course of a few months the Scotch Mining School will be in operation.

That the ingenious mechanic who by careful observation and untiring perseverance succeeds in introducing improvements in the manufacture or production of any article of general utility is entitled to every consideration is now almost universally admitted; hence the exertions of the **NATIONAL PATENT LAW AMENDMENT ASSOCIATION** are worthy of the highest credit; and the resolution passed at the meeting of that body a few days since, "that heavy taxes on inventors in respect to the property in their inventions—inasmuch as such taxes tend to prevent the publication and development of their projects for improving our manufactures—are injurious to the best interests of the country," will, doubtless, be received with general approbation. Few who have been concerned in the patenting of inventions under the old law and under the new can have failed to observe the vast improvement which has obtained in every department—even should the applicant be so fortunate as to hold a position where the difference in the fees payable is no object—and could any further reduction be made in the stamp duties without in any way lessening the efficiency of the office, a large number of needy inventors would unquestionably hail the change as one of the greatest boons which could be conferred upon them. But, we must not forget the indisputable maxim, that "the cheapness of an article does not always depend upon its being purchasable at a low price;" and we are sure it would be generally regretted if any change were made calculated to render the facilities in a monetary point of view for obtaining patents greater, at the expense of the derangement of the present system.

Previous to the Patent Law Amendment Act of 1852 the difficulties in the way of ascertaining what had been done by previous inventors were so great as to defy, in many instances, the ability of the most experienced agents; hence it frequently happened that a poor inventor who had expended his all to secure a patent for an improvement which he considered new and valuable, found, when too late, that the invention had already been practised, and that, therefore, the patent on which he had based his hopes was useless—everyone being at liberty to employ it as he thought fit. How changed is the state of affairs under the new system; the poorest has the advantage of a Free Library, with every book likely to prove serviceable to him, instead of having to pay 1s. for every specification he may wish to refer to, and then finding that they are written in a mysterious court hand, intelligible only to the favoured few, he can consult printed copies of every specification which has been filed, and of every patent which has been applied for, gratuitously; and he has the advantages of indexes of so varied a character that it is almost impossible that his researches can be fruitless, whatever object he may have in view. Even at the present moment these records—thanks to the zeal and perseverance of Mr. BENNET WOODCROFT—extend from 1617 to the present time, and searches now progressing at the Rolls Chapel are likely to carry back an additional century, so that we may justly anticipate that in a short time the Free Library of the Commissioners of Patents will be amongst the first in the kingdom, so far as regards its utility to those connected with mechanical pursuits. Let the National Patent Law Amendment Association persevere in their efforts, and we feel sure that they will meet with no opposition from those in office, but let them well consider that the working of the present system is excellent, and that alterations are not always improvements.

In last week's **JOURNAL** we very amply recorded the proceedings at the **GREAT WHEAL VOR** proprietary meeting; and we now append a statement of the sales of black tin since the present company started, in 1853, to Nov. 29 last. "It will be seen that although the outlay has been 343,007l. 19s. 1d., the returns have likewise been very large; there having been sold from—

The Flow .....	£35,283	0	0
Wheal Metal .....	80,143	3	6
Great Wheal Vor—Old Mine .....	41,889	3	5
Great Wheal Vor—New Mine .....	£157,315	6	11
The profit on the Flow and Wheal Metal will, therefore, stand thus:—			
Returns .....	£115,426	3	6
Deduct the purchase-money, capital account, and working cost .....	105,489	3	6
Leaving profit .....	£ 9,937	0	3

And if the working cost only had been taken from the returns (leaving out capital account and purchase-money) the profit would be 27,556l. 12s. 8d. Hence it will be apparent the assertion that Wheal Metal and Flow shows only a profit of 6025l. 6s. 11d. is not altogether correct, and that taking the enterprise *as it now is*, with the advantages of powerful machinery in full work, the mine actually drained to bottom, the shafts completed, the skips down to bottom, with every appliance for drawing at a rapid and cheap rate, development only wanting, it is a fair mining speculation; and, indeed, of a promising character, because the indications at the four principal points are so decidedly favourable—the 236, Borlase's shaft; the 284, West Boulder; Trueman's lode; and Wheal Metal; and it, as all the practical men who have lately inspected believe, the lode in the 236, Borlase's shaft, which is now worth 160l. per fathom, should turn out to be a new shoot of tin, dipping east, and dropping to bottom, it will impart to the mine all the character it had in the great rich main lode that has produced such enormous wealth. If we add to this the promising appearance of True nan's lode, and the favourable indications at Wheal Metal, these are grounds for hoping that the shareholders will be yet rewarded for their patience, perseverance, and great outlay; and I believe it must be admitted that no set of adventurers ever deserved success more than those of the Great Wheal Vor.

Taking this view of the matter, coupled with the fact that a large number of shareholders have, as we learn, already paid their calls, the committee being thus in a position to meet the pressing liabilities, we are,

doubtless, justified in concluding that the roughest part of the road has now been passed over, and that henceforward the course will be clear enough. From the unanimous manner in which the resolutions for continuing to prosecute the mine, and for providing further capital, were carried, there can be no doubt that the committee will be well supported, in a monetary point of view, and with their prospects, ample capital, and steady perseverance, it is seldom necessary to record want of success in mining enterprise.

#### THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

Dec. 16.—The price given by the smelters last week for ore copper (i.e. as much ore as will make a ton of fine copper) was 94l. 3s., whilst the price of cake copper was 102l. 10s. per ton. The difference is only 8l. 7s., whilst the average difference between ore and cake copper, taking the whole of the years 1856 and 1857, was from 22l. to 23l. per ton. How is it that the smelters are now, and have been for some time past, working their trade with so small a difference, comparatively, between the buying price of ores and the selling price of copper? If they can carry on their operations now with only 8l. difference, what must have been their profits in 1856 and 1857, when the difference ranged from 15l. 12s. to 41l. 15s., and averaged, as before stated, on the whole year about 23l. per ton? Whatever may be the reasons for the course the smelters have been for some time past pursuing, it seems tolerably clear, by the advance of the standard last week, that there will be soon a rise in the price of copper. The tin miners are also looking forward to a still further advance, and not without reason. The improving tendency of trade is such as to steadily help upward the prices of metals, and to give a better remuneration to the miners than they have received for some time past.

A fair amount of business has been doing in the Share Market, especially for dividend mines. Some of the better class of progressive mines are also occupying attention. South Frances shares are about 230l. At Dolcoath meeting a dividend of 5l. per share was declared, the previous dividend having been 4l. The mine seems to be rather increasing its produce, there having been sold in the last two months 113 tons of black tin, besides copper ore and arsenic. The profit in the two months amounted to 1878l., and after dividend a balance of 690l. was carried to next account. The mine is remarkably rich at some points, and the holding of the rise and winze from the 242 to the 254 will enable the agents to open more lode of rich produce. The best end in the mine at present is the 242 west, which is worth 95l. per fm. The whole of the ends are worth 209l. per fm., besides winzes worth 105l. per fm., and Dunkin's shaft worth 40l. per fm. From the depth of the mine the costs of sinking are necessarily great, being about 3000l. per month; but the ore laid open and in reserve, and the prospects of continuance, are such as to render the mine of great value so long as the price of tin keeps up, and of that there now seems every probability.

Wheal Seton, which was formerly a very rich mine, is now working at a small profit, but will probably yet do much better, and resume dividends. The costs, however, are heavy, amounting to nearly 1000l. per month. West Seton has much improved; the courses of ore at some points remind one of the great courses formerly found in Consols, in Gwennap. The 110 level east yields 13 tons per fathom, and there are four stops producing on an average each 11 tons per fathom. The ends of the different levels are yielding upwards of 30 tons of good copper ore per fathom; the stops and winzes are producing 47 tons per fathom; and Harvey's shaft is yielding 8 tons per fathom. At the meeting a dividend of 7l. per share was declared; but the next dividend is likely to be increased, as 400l. for erections, &c., was charged to this account, and the ore money to be credited to next account will be about 400l. more than was available at this meeting. At South Wheal Seton there is a promising lode in Marriott's shaft, but more depth is required before much ore can be expected. Wheal Trangle is also looking very promising, and at present seems likely to make ore at a comparatively shallow level. Wheal Charlotte has rapidly improved of late, and, it is announced, will soon pay dividends; the shares have advanced in a corresponding degree. Alfred Consols is again looking somewhat more promising. At West Basset there is an improving lode in the 94 east. East Basset shares are about 155l.; it is stated that a considerable quantity of ore may soon be returned from the lode at the 80. Grambler shares are at 130l. and upwards. South Tolgus, from 75l. to 80l. Condurrow is in an improving state; the discovery in the 80 fathom level, on the south lode, is worth 20l. per fathom for copper ore, and considered to be of much importance. Another cross-cut to the same lode will be accomplished early next month, and if found rich there also, the value of the mine will be greatly enhanced. There are also improvements at other points, and the next ore sampling, and the returns of tin, are likely to be increased. Shares in tin mines generally are firm, consequent on the recently advancing price of tin. Wheal Margaret's are at 62l. and upwards. Wheal Providence is looking well, and the shares keep up to the recent prices.

The Cornish miners have now the blessing of a cheap loaf, but the farmers are sorely discontented at the present low price of corn. Beef and mutton, however, maintain a good price, so that the stock farmers are still doing well. The season generally has been a very fine one in Cornwall for farming operations: over a great part of the country the autumn wheats are nearly all sown; the western district farmers are behind the others in their field work. The easterly winds and cold weather visited the West of England earlier than usual in the last quarter of this year. It is observed that the oak and Cornish elm lost their foliage this year earlier than in ordinary seasons.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

[FROM OUR CORRESPONDENT.]

Dec. 16.—We have no important change to notice respecting the Coal Trade here. The Iron Trade is a little more active, generally speaking.

The account of the quantity of coal exported in November, like that for October, is somewhat discouraging. A considerable deficiency is shown, when compared with the corresponding month in 1857, from the ports of Newcastle, Sunderland, and Shields, a slight deficiency from the Hartlepool, and from Blyth there is a considerable increase, this little thriving port being an exception to the general rule.

The owners of the Ryhope Colliery invited their mining engineer, Mr. J. Taylor, to a dinner at the Queen's Head Inn, in Newcastle, when they presented him, in very complimentary terms, with a magnificent silver tea service and silver tea tray, of the value of 200 guineas. The chair was occupied by Mr. T. M. Maude, of Solahy Park, supported by Mr. John Taylor on his right, and on the left by Mr. H. Taylor, of Earsdon, the Chairman of the Coal Trade. In addition to the owners of the colliery, several friends were invited. The particular reasons given for the presentation were to mark the sense of the owners of the skill and ability with which Mr. Taylor's engineering talent had been displayed in their service, particularly referring to the recent sinking through the sand at the new winning at Ryhope. We have noticed the particular circumstances connected with this winning previously, it is, therefore, unnecessary to detail them here. The service bears the following inscription:—"Presented by the Ryhope Colliery Company to John Taylor, Esq., in commemoration of the first and successful application of his new method of sinking through the sand in winning the Ryhope Colliery, and of the great benefit he thereby conferred on the owners, and also of the high esteem they entertain for him." This is a substantial mark of the approbation of the owners, and one which we fully believe has been well deserved by Mr. Taylor. It ought also to stimulate other colliery viewers and engineers to try to make advances in their profession, as good effects must follow such exertions.

The Jarrow Docks are so far advanced that it is expected the water will be put into them in a few days, and the shipping of coals will commence very shortly; this will be an event of much importance in connection with the trade of the Tyne, as the accommodation in those docks and the facility for shipping coal will be very much superior to that at any other place on the Tyne at present, not only with respect to the depth of water in the dock (which is 24 feet), but in the general arrangements. There are four long jetties, a shipping place being constructed at the end of each jetty, and also four shipping places at each side of the jetty, making nine on each jetty, or thirty-six shipping places in all. There is also extensive stanchage for trucks, wagons, &c., and every facility for the transit of full and empty wagons; so that the shipping of coals will proceed with a celerity and dispatch hitherto unknown at any shipping place in existence, at any rate, when the quantity capable of being shipped in a given time is considered. The adjoining port of the Wear, and also others, will do well to



look to their laurels, as the extensive improvements on the Tyne will, doubtless, make that river a formidable rival very shortly.

At Little Town Colliery, Geo. Johnson, a miner, who had his leg broken a few weeks ago by a set of laden tubs, so that it was necessary to amputate it, and mortification having taken place, he died on Sunday evening last; and on Friday morning Joseph Davidson was so severely hurt by a fall of stone, when at his work in the same colliery, that little hope is entertained of his recovery. On Monday morning several men were riding on the loaded tubs in the Haswell Colliery, when the train got off the rails and severely injured five men, three of whom are not expected to recover.

#### THE IRON AND METAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT AT WOLVERHAMPTON.]

DEC. 16.—The Iron Trade presents no decided change, but prospects for the ensuing spring are encouraging, and pig-iron remains firm, with a tendency upwards. The advices by the Australian mails received yesterday are rather more favourable than by the previous mails as respects the market for hardwares. The mail from Calcutta does not bring many orders; a succession of holidays, one of which is caused by the proclamation of the assumption by the Queen of the Empire of India, had prevented active business operations. The United States sends a fair quantity of orders for hardwares, which is the more encouraging as the present is not a time when orders for that country are largely looked for. There is also a fair home demand, although just before Christmas orders are not usually so numerous as in the early part of the quarter.

The examination of Mr. W. T. Riley, of the firm of Riley and Son, who failed in November last, with liabilities amounting to upwards of a quarter of a million, took place at the Birmingham Bankruptcy Court on Friday last. The accounts showed a deficiency of 210,000*l.*, which had arisen in less than four years, in addition to the swallowing up of 60,000*l.*, which Mr. Riley said he had brought into the estate. Stock was never taken, and the cash-book proved quite inexplicable. Mr. Deputy-Commissioner Waterfield adjourned the examination *sine die*, chiefly on account of the unsatisfactory character of the cash-book, which the bankrupt said he was unable to amend. The Millfields Ironworks, Bilston, until lately the property of Messrs. Riley and Son, have been disposed of to Mr. B. Gibbons, jun., of the Hallfields Works, Bilston, and of the Spennells, Kidderminster. At a meeting of the Inspectors of the estate of Messrs. Thos. Morris and Son, of Tipton, held a few days since, it was determined to pay an instalment of 2*s.* 6*d.* in 1*l.* immediately, that amount has been earned; and it is thought probable that the dividend will ultimately be larger than was anticipated.

The Chamber of Commerce of Birmingham has memorialised the Government to afford a moderate guarantee for the capital required for laying a new telegraphic cable from this country to America. In answer to a previous memorial, complaining of the mode in which Government contracts are arranged, the Lords of the Treasury reply—

That Mr. Lords do not think it right, upon allegations of so general a character as those contained in your letter of the 28th ult., to direct that a formal enquiry should be instituted into the large subject referred to therein. Before taking such a step their Lordships would require to be satisfied that a *prima facie* case existed of serious evils, which a general enquiry into the system might help to redress. My Lords, therefore, request to be furnished with a statement pointing out what are the conditions usually attached to Government contracts, which are stated to be of such a nature as to deter many of the most respectable manufacturers from sending in tenders, and to be moreover open to great abuse; and also indicating what are the forms of tender which are considered unreasonable, contradictory, and calculated to lead to the supply of inferior articles at greater prices than those at which more modern and superior articles could be obtained. A committee has been appointed to furnish the detailed information asked.

#### REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

DEC. 16.—The position of trade in general, and the Iron Trade in particular, continues to present those features of improvement which have so gradually manifested themselves for some time past. The enquiry for merchant iron is on the increase, whilst the home trade is considerably improved. The termination of the Elsecar colliers' strike will soon enable the ironworks at Parkgate to obtain the necessary supply of coals to work the full complement of men. The Government has just given out a large order for iron, which has been distributed amongst several houses in Yorkshire and Derbyshire.

The demand for Coal continues to increase, and in the districts affected by the strikes the demand cannot be complied with, but as a termination has been put to the strikes in the principal districts we shall soon have an augmented supply. Lord Fitzwilliam had decided not to employ men belonging to the Union, and to manifest his unalterable determination, he resolved to close his pits at Elsecar. The colliery horses were advertised for sale, which satisfied the colliers that their only course was to comply with his terms. A number of the workmen who had been in his lordship's service many years, and lived in his cottages, were the first to return to work, and their example was soon followed by others, who, by the way, had been receiving relief from the Colliers' Union, and this fact proved a sore grievance with those who still held out. It is now evident that the strike of colliers is virtually at an end; and what object has it accomplished? It has shown the men the door of starvation, it has deranged the trade, and impoverished them and their families to an extent that will be felt severely for the next year. The colliers must submit to have their labour regulated by supply and demand.

A collier, named John Ford, employed by the Wingerworth Iron Company, was brought before a bench of magistrates at Chesterfield, on Saturday, charged with violating one of the special rules of the company's pits, by opening a separation door, which had temporarily stopped the ventilation of the pit. The evidence against the man was exceedingly slight, and the magistrates dismissed the charge. What did the man say in defence? He positively asserted that the under-viewer told and pointed out to him to open the door in question to let off the smoke after he had fired a shot—that he did open the door, but it was in obedience to the orders of the under-viewer. We are of opinion that the under-viewer was more to blame than the collier summoned, because it was to be expected that he would follow the orders of his superior.

A fatal accident happened at the colliery of Mr. Webster, at Killamash, to a sinker, named George Cousins, a man about 50 years of age. The deceased was at work at the bottom of the pit when a portion of the bind fell, and he was killed on the spot. A fatal accident also happened at Pinxton, near Alfreton, on Wednesday, and an inquest is being held to-day, but the facts of the case have not yet reached us.

A meeting of shareholders in the New Midland Mine, at Ashover, will be held on Thursday, when a very important question will be submitted to the meeting—whether the company shall be wound-up or not, and a full report and explanation of the operations which have been adopted from the commencement of the company up to the present time. A great hope was entertained that when the miners got to the junction of the veins some good work would be found. It has been ascertained that the old miners have greatly explored the place. Operations have been directed in the way which the ancient miners had not taken.

A mine known as the Haslam Pipe and String Rock, at Matlock, is reported to have much improved. We have to record the complaints of the shareholders of the continuance of a manager at 40*l.* a year, who is resident at Chesterfield, and who is enabled to attend the mine only once or twice per week. The office cannot be of much value, if the expenses of travelling are taken into account, which he has himself to pay.

The directors of the Mill Dam Mine continue to receive from the manager satisfactory reports of the progress of the new shaft, which is now sunk upwards of 60 yards. The expenditure up to the last pay-day, Oct. 30, was 1734*l.* 1*s.* 10½*d.*, out of which 500*l.* has been paid for the mines and plant, the rest having been expended in sinking the new shaft, driving the levels, &c. The calls on the whole of the shares, except 102, have been paid-up, and those have been paid by public auction, and forfeited for the benefit of the company. The water at the old engine-shaft has sunk down a distance of about 20 yards, and according to the opinion of the manager, and the confidently expressed convictions of those resident near the mine, and who have worked in it, some excellent mineral ground has been laid dry. A large quantity of rubbish was left in by the former lease of the Mill Dam Mine, which the manager is now removing, and in the course of a short period, perhaps a few weeks, the value of this new ground will be practically tested. The present call is to enable the directors to continue the sinking of the new shaft. It is also contemplated to erect a steam-engine and working plant at the earliest possible period, so as to facilitate the early development of the mine.

The strike at the collieries of Earl Fitzwilliam, at Parkgate and Elsecar, appears likely to come to an early termination, 300 of the turn-outs at Parkgate having this week resumed work at a reduction of 5 per cent., and under an agreement to withdraw from the Miners' Union. About 100 more have intimated their readiness to resume work on the same terms; but as they are men who have taken a leading part in the strike, his lordship declines to re-employ them on any terms. The Elsecar miners on strike also appear to be giving way. The extensive ironworks which were stopped by the strike will now probably resume full operations, and thus put an end to the distress

of the furnacemen. Messrs. Charlesworth have increased the number of non-Union men in the pits at Rawmarsh to about 90; the number still on strike at their pits being 395.

One of a pair of engines at Mr. W. Paley's, Bank Top Mill, Salmon-street, Preston, broke down on Wednesday. Richard Allanson, the engineer, happened to be in the engine-house at the moment, and shut off the steam, thus preventing greater damage than had already occurred; but in doing so he was severely injured by some of the machinery falling upon him. It was then found that the accident had arisen through the giving way of the spring-beam. This is the same engine (a double one of 60 horse power each) that broke down on Oct. 28, when damage of from 900*l.* to 1000*l.* was done. The present casualty will not long stop the mill, which employs 400 hands.

#### REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

DEC. 16.—We are glad to be enabled to report a steady improvement in both the Iron and Coal Trades of the district. A very perceptible change has taken place within the past few weeks; and at the large works—Nant-y-Glo, Blana, Ebbw Vale, and Blaenavon, for example—all the furnaces are in blast, and, generally speaking, the men are employed full time. No alteration has taken place in the scale of wages; but the condition of the workman is becoming better, and there is every prospect of further amendment. It is almost universally considered that next year will be a prosperous one for the iron trade; and Mr. T. Powell, of the Gaer, and Mr. T. Brown, of Ebbw Vale, both largely connected with the interest, have this week publicly expressed their belief that 1859 will be a "splendid" year for all. The ironmasters throughout the county are of a similar opinion; and the increase in the number of orders received at present fully justifies them in the anticipation. With a vigorous home and continental demand, and a partially restored American enquiry, we can scarcely fail to experience a year which will favourably contrast with that now rapidly drawing to a close.

Various improvements are still being carried out at the Blaenavon Works, principally in underground machinery. The designs are not yet completed, and it would, perhaps, be premature to enter into any description of them at present. We hope, however, to lay some interesting particulars relative to the subject before the reader in the course of a few weeks. The works, as we have already intimated, are going on prosperously, and at the present time some extensive orders are in hand.

We have advanced one step further with regard to the proposed experiments for the purpose of testing the relative merits of Welsh and North Country coal. The evaporative and other qualities of both coals are about to be fully and fairly tried by two engineers sent down by the Admiralty Commissioners. Every facility will be afforded these gentlemen by the South Wales coalowners, and whatever materials or appliances they may require will be freely placed at their disposal. As much confidence is felt with regard to the result as ever, and we hope that the dispute will soon be finally set at rest.

At the Pontypool Petty Sessions two colliers, named Richard Davies and Edward Goodwin, have been brought before the magistrates charged with leaving their work without giving the usual month's notice. The men were employed at Ebbw Vale, and the "gaffers" proved that they absented themselves without permission, and afterwards enlisted as soldiers. They were each committed to prison for ten days with hard labour.

A dinner has been given this week in celebration of the Penclawdd Colliery and Coke Works, Glamorganshire, passing into fresh hands—Mr. Smith Stobart, formerly of Newcastle, having become manager and part owner. A good many gentlemen from the district were present, and kind wishes were expressed for Mr. Stobart's future success. That gentleman made a few remarks on the prospect of the colliery, and observed that although it had not hitherto done well he thought it would, as it comprised four excellent seams of coal, and nothing more was required than to increase its production. In speaking to the men, Mr. Stobart particularly cautioned them against sending up any slate or foul coal with their "gettings." He mentioned that in the North of England if any collier sent up a tub of coal with 6*lbs.* of slate, he not only forfeits the tub, but is fined 2*s.* 6*d.*

An inquest has been held at Brynmawr on the body of a collier named Thomas Drewett, who was found dead in the Bwddellog level, belonging to Mr. Crawshaw Bailey. A heavy fall of coal came upon the deceased, and no doubt killed him instantly. The jury decided by their verdict—"Accidental Death"—that no one is to blame for the occurrence.

Coal has been found in considerable quantities lately in boring for the tunnel of the Bristol and South Wales Union Railway, at Almondsbury. Investigations will be instituted to ascertain whether the vein will pay for working.

An explosion of fire-damp took place a few days since in the Myndd Newydd Colliery, belonging to the Swansea Coal Company. Several men were slightly burnt, but no fatal result has taken place.

#### COAL MINING IN THE FOREST OF DEAN.

It appears certain that for nearly 500 years the coal of Dean Forest has been recognised as a source of wealth by the inhabitants, and it is doubtful whether mineral fuel was not utilised even long before that period. Mr. Nicholls, in his very interesting "History of the Forest," to which we have already several times referred, remarks that there is a difficulty in determining which is to be considered the earliest allusion to the working of coal in the Forest, since charcoal, as well as sea or pit coal, was thus indifferently designated: not that the latter was carried by sea, but only that it agreed in character with the coal usually so conveyed. The first notice seems, however, to be that supplied by the records of the Justice Seat held at Gloucester in 1282, where it is stated that the sea coal was claimed by six of the ten bailiffs of the Forest of Dean. The original methods of getting coal in the locality probably conformed to the modes then used for obtaining the iron mine, the veins of both minerals showing themselves on the surface much in the same manner; so that it is probable the old coal workings, like those of iron, descended only to a moderate depth, and for the same reason were frequently carried on by driving levels, for which the position of several of the coal seams was highly favourable. In 1610, liberty to mine such coal as might be necessary for carrying on the ironworks was granted by James I. to William Earl of Pembroke. This is the earliest mention of coal being so used, agreeably to the efforts then making by Simon Sturtevant and John Rovenson to adapt it by baking for such a purpose. An Act of 1668 confirmed to persons digging for coal in the Forest their lawful rights and privileges, as also to the Crown the liberty to lease the coal mines for a period not exceeding 31 years.

Even so late as 1779 an historian remarks that "the pits are not deep, for when the miners find themselves much incommoded with water they sink a new one rather than erect a fire-engine, which might answer the expense very well; yet there is not one of them in all this division. They have, indeed, two or three pumps worked by cranks, that in some measure answer the intention." In 1788 there were, according to the gavelier's report, 121 coal pits (31 of which were not actually in work), which pits produced 1816 tons of coal per week; that there were 662 free miners concerned and employed therein; and the annual compositions paid by them amounted to 215*l.* 8*s.*, or thereabouts, although many of them were so poor that no money could be collected from them. This production has gradually increased to the present time, the yield for 1856 reaching nearly 500,000 tons, and the many facilities which the district offers for the profitable development of coal mines has induced the formation of an influential company, under the title of the Gloucestershire Coal Mining Company, with a capital of 40,000*l.* to work four well-known collieries, which only require capital to bring their treasures into the market. Dr. Joseph Watson's elaborate paper on the "Ironstone Formation and Mineral Riches of the Forest generally" we have already published, and his report upon the four collieries which are about to be worked by the Gloucestershire Coal Company is of the most detailed and explicit character. The communications between the mines and the Forest of Dean, and the principal markets for the minerals, have hitherto been so costly and imperfect that to within a recent period the only market for coals was in the neighbourhood of the pits; and the want of an economical means of transport in all cases with mineral properties more than outbalanced the advantages which they may otherwise possess. This remark, however, does not apply to the collieries about to be worked by the Gloucestershire Coal Company, as these are joined by their own line to the Great Western and South Wales Railways at Churchway, and are also in connection with the Severn and Wye Railway at Lydbrook, thus possessing every facility for reaching both inland and outward markets. The drainage, again, is excellent, an adit level unwatering upwards of a square mile of the coal field, and perfectly superseding the use of any pumping machinery. Proceeding on the calculation of 3 to 3½ tons per square fathom, and averaging the thickness of the coal seam at 5½ ft., after allowing for waste made in cutting, and coal which cannot be extracted except as lime coal, Dr. Watson estimates the quan-

tity of coal in the several collieries at nearly 2,000,000 tons, and remarks that few coal properties have ever been offered to the public possessing more positive security for investment, and that with judicious and watchful management upwards of 7000*l.* per annum profit may be realised. Now, without reference to the correctness or otherwise of Dr. Watson's report, it must be admitted that the company in question propose to work a property in a district known to be rich in coal, that coal is readily saleable, and that there is every facility for bringing the produce of the mines into the market; hence the risk cannot be compared to embarking in an undertaking for working coal in Surrey, Sussex, or Northamptonshire, where, in the first place, the existence of the coal has to be proved, and then, from the mineral being unknown to the consumer, there might be difficulty in finding a market. The mineral wealth of Dean Forest is not questioned, and it may, therefore, be presumed that a coal mining adventure, where the liability of the shareholders is limited to the amount of their subscription, is far from being an undesirable speculation.

#### LEGITIMATE MINING AS AN INVESTMENT.

BY JOHN ROBERT PIKE.

Begot in sorrow and misfortune, the year 1858 has nearly run its course exhibiting in its decline high promise of a brighter future. A long period of abject depression has been followed by a few weeks of animated business. Discoveries have followed each other with a rapidity truly astonishing, as if Mother Earth herself were ashamed of her ingratitude, and had determined to repay with no niggard hand the energetic perseverance of her votaries. But not in number alone are the discoveries of the past few weeks of so much importance, the solid value of some are now beyond all chance of doubt; whilst the unique character of the ore in one of the mines reminds us more of the prolific wealth of the Mexican highlands than of the sombre riches of our Cornish Huels. The fresh impetus thus given to mining enterprise is already beneficially felt, both by the general public, who know nothing of the intricacies of mining science, but also by mining men, *par excellence*, whose experience has led them to expect the advent of more than one of the recent prizes. The close of the year is at all times an inauspicious period for the prosecution of fresh enterprise. Business men are usually engaged in the adjustment of their ledger balances, so as to start as unencumbered as possible on the 1st of January; and individuals who derive their incomes from other than trade sources, are already involved in preparations for the coming festive season, so that the full benefit of the discoveries to which we have alluded will not be sensibly felt until January ushers us into 1859. A review of the mining incidents and business of 1858 we cheerfully leave in the hands of the able City Editor of the *Mining Journal*; but apart altogether from this work, for which he is in every respect so much better qualified, we would wish to mark this period of the present year as an epoch in the history of British Mining.

The season of commercial distress from which we are just emerging, notwithstanding its many saddening episodes, has, amongst other things, purged the mining market of many schemes which held out no remunerative prospects, the shareholders in which must have been the principal sufferers, and who, philosophising apart, should consider a loss opportunely made as a positive gain. In consequence of this elimination, it may be affirmed as a rule of the mines now at work, that if not returning profits their reputations rest on tangible bases. When speculative business is brisk, and money plentiful, men are loath to engage in reformatory work, no matter how inconveniently abuses may impede their progress; but when the business horizon becomes clouded and obscure, when adverse influences mar the best-considered and most sagacious plans, the foiled gladiator in the fight of life is compelled to institute a searching enquiry into causes and their remedies. So it has been, and now is, with the mine share market; a growing disposition exists to check abuses, and an increasing determination is evinced by the members of the market to submit in all things reasonable to the necessary restrictions of delegated authority, so as to give to their transactions for the future a respectability and position which mining business has never heretofore enjoyed.

Turning now to the metal market, we find the prices of copper and tin at a highly remunerative standard for the miner, and more likely to advance than recede. The very important markets opened up within the last few months to the trade of this country in the East, by the efforts of diplomacy, must necessarily stimulate consumption; so that all things considered, with ordinary prudence and average industry, we predict for British mining from now henceforth a long, brilliant, and prosperous career.

In our next we purpose to describe the various discoveries to which we have this week alluded, but as we conceive it to be important that the public should know without delay the present state of the lode in East Basset, we give the following particulars, just received:—

The lode in the 80 east is yielding 8 tons per fm., worth 10*l.* per ton. The lode in the 80 west is producing 10 tons per fm., worth 10*l.* per ton. The waste sinking below the 80 is yielding 4 tons per fm., worth 15*l.* per ton. The slopes in the bottom of the 60 are worth 80*l.* per fathom.

#### THE AUSTRALIAN MAIL.

The delivery of the letters by the Australian mail, the arrival of which at Malta was announced by telegram in our last Journal, gives us dates from Adelaide to Oct. 11; Sydney, Oct. 12; and from Melbourne, to Oct. 18. The packet with the July and August mails from England did not reach Melbourne until four days after it was due, and the departure of the bags for England was consequently delayed two days.

From Sydney, we learn that some disappointment was felt with respect to the discoveries of deposits of gold near Port Curtis, to which our advices by the last mail alluded. They have not proved so remunerative as was anticipated, and the rumours as to the vast riches discovered were evidently exaggerated. About 5000 men had left Sydney for these diggings, in the hope of securing good auriferous ground, and nearly 7000 diggers and others have gone from Melbourne for the same destination, but most of them were returning as opportunity offered, as the discoveries made were shown to be merely an alluvial flat, of limited area, containing gold near the surface, and which had apparently been washed down from the surrounding ranges of hills. Deep sinking had been tried, but without success.

From Melbourne, however, we are assured that fresh openings for gold seeking have presented themselves in Victoria, so that occupation could be readily obtained by those who returned disappointed from Sydney. A new deposit, south of the Murray, has been met with, and promises to be of great extent. "Every day," says a Melbourne correspondent, "large bodies are to be seen passing through town, on their way up the country; and when the leasing system is in operation, and fixture of tenure can be obtained, very much more capital will be invested in the purchase of machinery, and in permanent improvements calculated to increase the yield in proportion to the number of men at work." The official account of the yield of gold for the three months ending Oct. 15 do not, however, show an increase over the same period of last year, but, on the contrary, the excess is in favour of 1857. The total for the three months of this year is 640,338 ozs., whereas for the same months of 1857 it was 704,769 ozs. The annual returns since 1852 are likewise furnished; in that year the total yield was—1,974,975 ozs.; in 1853 it rose to 2,497,723 ozs.; in 1854 it was 2,144,690 ozs.; in 1855 it was 2,576,745 ozs.; in 1856 it advanced to 3,003,811 ozs.; and in 1857 it was 2,729,655 ozs. For the nine months of 1858 the total is 1,900,443 ozs., or equivalent to about 2,500,000 ozs. for the year.

The revenue returns for the colony of Victoria for the year and the quarter ending Sept. 30 had been promulgated, and were considered highly satisfactory. The expenditure for the year amounted to 2,986,180*l.*, and to 638,011*l.* for the quarter. Spirits, wine, and beer, had contributed to the revenue less than last year by 72,291*l.*, and tobacco had added 22,037*l.* The electric telegraph department gives an increase of 5425*l.*, which is a good indication of the activity which prevails in all branches of commerce, and the extension of every description of industry. The exports of native produce during the year 1857 were declared at 15,079,512*l.* in value, while the imports are set down at 17,256,200*l.*, which is 2,176,678*l.* against the colony; but the returns made up to Oct. 9 in this year give a different result, the exports being in excess of the imports by 1575*l.*, the total declared value of the former being 9,998,272*l.*, and 9,996,697*l.* for the latter.

On the subject of railways, we find that those undertaken by the Government are going on steadily, but the full complement of hands had not yet been put to work. The Government, however, had notified to the contractors that the full terms of agreement in this, and all other respects would be enforced, that no unnecessary delay might occur.

Mr. O'Shanassy, in the sitting of the Assembly on Oct. 15, and in reply to a question from Mr. Adamson, with respect to the communications from England in connection with the Geelong and Melbourne Railway, stated that he had received the various letters from Mr. Cooke, the managing



secretary of the company in London. Grave misrepresentations had been made, he said, of the Government of the colony at various meetings by the representatives of the company, but as the correspondence was as yet incomplete, he could not assent to their being laid before the House. He, however, read extracts to show that the object of the resolutions passed at these meetings was to throw upon the Government all the responsibility of the past undertakings of the company. He deprecated the language used as unjust in every sense as applied to the Government, and vindicated its conduct in reference to this company; while, continued Mr. O'Shanassy, "the proceedings of the shareholders in the colony were not much more creditable than those of the English shareholders." Every encouragement and assistance had been rendered by the Government, he contended, and the ill-success of the undertaking was not their fault. "They had evidence before them that it would cost 800,000, in the whole before it could be finally completed, and it was simply absurd to ask the Government to purchase a line on which liabilities of this kind rested." Dr. Thomson, on the part of the directors of the company, "repudiated any action of Mr. Cooke, and of the other parties acting with him in London. He believed that the circumstances had not been fairly stated to the London shareholders—that Mr. Cooke was only acting as an agent, and had no claim to act as on behalf of the directors." Dr. Thomson then went on to explain how the misapprehension arose, and denied that it would cost so much to complete the line as Mr. O'Shanassy had stated.

Our advices from Adelaide are to Oct. 11, at which date the July and August mails from England had not arrived, but a telegram had been received from Melbourne, a few minutes before the departure of the local steamer, announcing the arrival of the mails in that port. The chief subject of interest on the present occasion is the fact of fresh discoveries of copper mines in the colony, which had created considerable sensation, from their reported richness; but we refer to these matters more in detail in a special paragraph. Trade generally was depressed, and there was some apprehension that the coming harvest would not yield an average crop. The hot season had set in rather suddenly, and accompanied with violent hot winds. In politics there was nothing new.

**COLLIERY EXPLOSION.**—A lamentable disaster occurred, on Saturday last, at the Tyldesley Colliery, near Manchester, by which 25 lives were sacrificed. This colliery has been worked by Messrs. Green, Holland, and Co. for some years, and in their employ were some of the most experienced men. In the absence of any positive datum as to the cause of this sad catastrophe, it is supposed that the cause of one of the men's lamps had been injured, by which means the flame communicated with the fire-damp. All the lamps that have as yet been found, however, have had the tops on, and the proprietors, it appears, were scrupulously careful in enforcing the observance of the rule that no man should be allowed in the workings with a naked lamp. A few hours previous to the men descending, the firemen, as usual, inspected the mine, and reported that the air was good. The most remote point of this mine, it is stated, is under Tyldesley Church, and the inflammable air is supposed to have become ignited at some considerable distance from the bottom of the pit shaft. It was first observed by Aspinall, one of the deceased, who was employed at a pillar working between 500 and 600 yards from the shaft. As soon as the damp was perceived, Aspinall proceeded to the two firemen (Thomas Bewick and Moses Brooks), who were stationed near the shaft, to whom he communicated the fact. Aspinall, in company with the firemen, proceeded towards his working. Before, however, they had reached it, the explosion occurred, and the roof of the passage along which they were proceeding fell, and crushed them to death. The explosion, although of a terrible character, and reverberated throughout the whole limits of the mine, was not heard at the surface. As soon as it occurred, cognizant of the deadly nature of the after-damp, the miners from every part hastened towards the shaft, to escape before it could penetrate the distant workings. Some of the poor fellows, however, who had long and intricate passages to traverse, were suffocated, the air-ways having been destroyed by the explosion, the after-damp overtook them along the brows they were descending. The workings being so densely charged with sulphur, some hours elapsed before any means could be taken to discover the extent of the calamity, and even until noon on Sunday six bodies remained undiscovered. In a short time after the explosion many humane gentlemen experienced in mining were upon the spot; among others Mr. Bailey, of the Bickershaw Colliery, and Messrs. Horrobin and Burrows, of the Atherton Collieries, who kindly procured their invaluable practical aid and advice in the unfortunate emergency. On Tuesday, Mr. Dickinson, the Government Inspector, inspected the workings. On Wednesday, a jury was empanelled, when the Coroner stated that the Government Inspector had not then completed his examination of the mine, upon which it was arranged that the enquiry should be adjourned until Wednesday next. Two witnesses have not yet been restored, and it will be some time before the work can be resumed. Of the men who were killed 11 have left widows, with 30 children. These are being duly cared for, and the subscriptions on their behalf are progressing satisfactorily.

**CONVICTIONS AGAINST A YORKSHIRE COLLIERY OWNER, HIS AGENTS, AND WORKMEN.**—Before the West Riding Justices, at Bradford, on Dec. 9, J. Jaggar, the agent or underwriter at the Newmarket Colliery, Adwalton, was charged by Mr. Charles Morton, Inspector of Coal Mines, with several breaches of the Act 18 and 19 Vic., cap. 108. Mr. Skipworth, solicitor, of Wakefield, appeared for the prosecution, and Mr. Terry, solicitor, of Bradford, conducted the defence. Mr. Skipworth stated that these proceedings, as also those to be afterwards heard, had been instituted by Mr. Morton, with the sanction of the Secretary of State for the Home Department. On Sept. 22 last an explosion of fire-damp had occurred in this colliery, when Samuel Wallace, a miner, was burnt. An old bank and a portion of the neighbouring endings were entirely unventilated, and became filled with gas; and several days prior to the explosion the defendant's attention had been called to the fiery condition of these workings. A special rule of the colliery directed that when any place was found fiery, it was his duty to warn the men and boys not to enter it, and to fix a bar across the entrance, and hang thereon a board with the word "Fire" painted on it; and by another rule he was required to see that safety-lamps were used and candles excluded wherever danger from fire-damp was apprehended. The defendant, however, wilfully violated these rules: he neither fixed a fire-board nor cautioned the men, nor introduced safety-lamps, nor attempted to remove the gas by driving in air. On the contrary, he sent Wallace with a lighted candle to work there, giving him no caution whatever as to the danger, and Wallace had no sooner arrived at the spot than the gas ignited, and injured him so severely that he was still unable to work. These facts having been proved, Mr. Terry (on behalf of the defendant) urged that the tram rails for some yards near the old bank were pulled up, and that Wallace was told by another person not to proceed beyond that point, but deafness prevented him from hearing the caution; and, further, that the defendant had not a fire-board ready on the premises. The Bench said that the defendant's conduct was reckless, and admitted of no excuse; the highest penalties would, therefore, be inflicted—namely, 5s. in each case, or in default of payment, one month's imprisonment for each offence. The defendant was further charged with the neglect of other special rules, by which it was required that the permanent stoppings should be built of bricks and lime, and plastered on one side; that the doors in the principal airways should be checked or double; that the ventilating furnace should be constantly attended to; and that the working places should be daily examined with a safety-lamp before the miners descended. These offences were also proved, and the Bench fined the defendant in additional penalties, amounting (together with those previously mentioned) to upwards of 30s. besides costs, or in default of payment, imprisonment as in the former cases. Samuel Holliday, owner of the colliery, was then charged with having neglected to provide any fencing at the top of one of his working pits. Before daybreak on Nov. 5 last a boy named Watson fell into this pit (a depth of about 30 yards) and was so seriously maimed that his life was still in danger. In his letters to Mr. Morton, the defendant professed much regard for the safety of his workmen; but it was evident that he practised very little. Mr. Morton had been in correspondence with the defendant since August last relative to the better observance of rules at the colliery, but without success, and it was only when Watson's accident came to be investigated by Mr. Morton that the explosion of fire-damp, which happened two months previously, was made known. The defendant's air was, was insecurely fenced; there was no break on the drawing-engine, though the engine-man had frequently complained of the want of it; there was no proper water-gauge attached to the steam-boiler; the defendant had no plan of the workings of the top coal bed, as required by Act of Parliament; and he had not supplied a copy of rules to the bankman of the pit down which the boy Watson fell. These charges having been substantiated to the satisfaction of the magistrates, they decided to levy the largest penalties in their power; and stated that there seemed to have been a determination on the part of the defendant to break through all rules, whatsoever, and that it was disgraceful for a dangerous occupation like mining to be conducted in so very careless a manner. For five of these offences the defendant was adjudged to pay 25s., or suffer two months' imprisonment in each case; and for not having a plan of the underground works 10s., or three months' imprisonment. William Haley, the deputy-steward, J. Firth, the bankman, and John Hetherington, the hanger-on at this colliery, were also charged with the violation of various special rules, and were convicted in penalties amounting altogether to 8s. besides costs. The sum total of penalties and costs paid by the colliery owner and his servants was said to be 82s. 12s. 6d.

**NORTH WALES MINING DISTRICT.**—At the Vron Colliery there is a very brisk business doing, but nearly all the other works in the Wrexham district have been very slack, nor is a much better prospect anticipated until after the commencement of 1859. Some of the collieries have temporarily ceased working at the Ruabon Coal Company's pits, the cause being they are in the immediate neighbourhood of old workings, which contain a large amount of water, which the men, as a matter of course, are afraid of tapping; in which case a vast number of lives would be imperilled by sudden inundation. Every precaution is, however, taken by the manager to prevent such a catastrophe. At all the works in the Ruabon district trade is in a prosperous condition. In the neighbourhood of Trydren, near Mold, several new pits are to be opened. Mr. May has been lately boring for coal upon his estate near the Paesowd Station, on the Mold Branch Railway, with exceedingly satisfactory results. There has lately been formed a limited liability company for the purpose of working the old Nantawney Colliery, which closely adjoins Mr. May's ground, on lands belonging to the lords of Mold. Messrs. Howarth and Thompson, of Trydren, have been proving a coal pit adjoining the before-mentioned, so that there is every probability of abundant employment during the winter months. Several blast furnaces, it is said, are about to be opened in the same district. The iron trade generally is not in a very flourishing condition; but at Minera there is a brisk business in ironstone. At all the lead works much activity prevails, and several new ventures are about being opened, the Wrexham tradesmen speculating in these matters with much avidity. —*Manchester Guardian.*

**COAL AND IRON.**—The number of hands employed at the Derwent Iron-works is 5000, and the coal consumed at various fires and furnaces consist of nearly 10,000 tons per week. —Messrs. Bolekov and Vaughan, the eminent ironmasters, are turning out upwards of 12,000 tons of ironstone, and 3900 tons of iron fortnightly. —The strike of the colliers in Yorkshire is now virtually at an end, the men having gone to work, in most instances, at a reduction of 7½ per cent., the master at the greatest insisting on 1s. An increase of activity is observable in the iron trade of this district, probably from the somewhat firmer price of metal, and the contracts obtained by some of the ironmasters for supplying rails to the East Indies and elsewhere. The stocks, generally speaking, are inconsiderable in Cleveland. —*Sunderland Herald.*

## WEEKLY LIST OF NEW PATENTS.

**GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.**—F. WAGLEY, Manchester: An improved self-acting safety coupling valve for railway and other purposes. —W. L. A. VOLWERTHOUT, A. method of lubricating cocks and taps. —T. BRAYON HUBBELL, G. J. ROLLANDSON, Castle-street, Middlesex: Apparatus for brightening and polishing metal surfaces. —A. BOWIE, Glasgow: Governors for marine engines. —W. RICHARDS, Barcelona, Spain, and Harpur-street, Red Lion-square, London: Construction of gas meters. —H. L. PATTERSON, Stotes Hall, Jesmond, Newcastle-upon-Tyne: Utilising the heat of slags of iron and other works. —C. HADDOCK, West-street, Smithfield, London: Certain improvements in the manufacture of electric telegraph wires and cables. —D. THOMSON, Old Brompton: Machinery for raising water and other liquids. —H. H. BOW, Edinburgh: Railway chairs and fastenings. —E. JONES, Dudley, Manufacture of coke in ovens. —J. SAMUEL, Great George-street, Westminster, J. NICHOLSON, Wellington-st., Brompton: Improvements in, and in connection with, marine and other steam-engines. —H. ADOCK, City-road, London: Furnaces and apparatus for annealing wire. —FRED. FINCHAM, Ravenhead: Construction of annealing furnaces or ovens. —J. ROGERS, Queen-square, Bartholomew-close, London: Manufacture of ropes, cables, cords, and lines. —J. TISSER, Rotterdam, Holland: Obtaining and applying motive power. —J. BAILEY, Vienna, Austria: Construction of railway wheels. —M. HART, Fleet-street, London: Manufacturing and revivifying animal charcoal, and in kilns or apparatus employed therein; also, in weaving, or in apparatus and looms employed therein. —R. PICKERING Lockie: Communicating signals from one part of a railway train to another. —D. B. WHITE, Newcastle-upon-Tyne: Indicating gauges. —F. W. FLETCHER, Hurdington: Bolts for securing doors and for other similar purposes. —J. G. E. LARNED, Brooklyn, New York: Improvement in the construction and arrangement of the boilers and working parts of steam fire-engines, part of which is applicable to engines for other purposes. —S. W. FROST, Nelson-square, Commercial-road, New Peckham: Obtaining and purifying naphtha, paraffine, and oils, and also spirits.

**IMPROVED SAFETY CAGE.**—The improved apparatus for extracting coals and minerals from mines, which forms the subject of an invention specified by Lieut.-Col. Demanet, of Brussels, is composed of two strong iron screws, which extend from the bottom of the shaft, where they turn in steps, up to the surface of the ground, where their upper extremities are set in bearings in a head frame, in which they are capable of turning freely. The upper extremities of the screws are provided with pinions, taking into a large toothed wheel mounted between them on the shaft of a horizontal wheel, which is driven by a crank rod actuated by a steam-engine. By this means the two screws will have rotary motion communicated to them in the same direction. Upon these screws are mounted two platforms, provided at each of their extremities with a strong female screw, through which the long vertical male screws pass. These platforms form the top and bottom of a cage, which may be divided into several compartments by horizontal partitions, upon which are to be placed trucks or boxes containing the coal, ores, or minerals. By this arrangement it will be seen that on rotary motion being imparted to the screws in one direction, the cage will be raised with its charge, and will be lowered on the screws being made to rotate in the contrary direction. It will also be understood that the speed to be imparted to the cage may be increased or diminished, either by increasing or diminishing the pitch of the long male screws, or giving them greater or less speed. In order to prevent the screws from bending or twisting, they are supported by spring-holding clamps fixed firmly at certain distances to the sides of the shaft, which are made to allow of the passage of the cage by the following means:—At the extremity of each female screw of the platform is fixed an iron bar, which is wedge-shaped, and extends a little beyond the cage both at top and bottom. The spring-holding clamps are formed of two arms, between which the side bar is made to enter on the ascent or descent of the cage; by this means they will be made to open, and are held in that position during the passage of the bar or cage, but as soon as the cage has passed the clamps they will again close upon the screws. Two sets of apparatus may be set side by side, and united by means of a connecting rod on the eccentric wheels, so that one apparatus may raise a full cage and the other lower an empty one at the same time. For this purpose, the apparatus may be thus worked, the thread or worm of one pair of screws may be set in a contrary direction to that of the other pair. The apparatus may also be employed for raising and lowering workmen, as it offers great security, and allows of the apparatus usually employed for that purpose being done away with.

**MANUFACTURE OF IRON.**—Mr. Jos. Whitley, Leeds, proposes that the air required to pass through the smelting or other furnaces employed, in place of being forced through by a blast, as heretofore, should be drawn through by suitable exhausting apparatus. By thus causing the air required for the conversion of the ore to flow in by the creation of a partial vacuum, not only is the supply of such air facilitated, but the deleterious gases generated in the upper part of the furnace are at once withdrawn.

**ENAMELLING IRON.**—A very simple method of coating iron with an enamel of glass is a desideratum. The following process, we are assured, is effective for securing this object, and is the cheapest and most simple which has yet been brought under our notice. The iron articles are first thoroughly scoured with sand and dilute acid, then washed and dried. Their surfaces are now covered with a thin coat of gum-arabic laid on with a brush, and over this the enamel powder is sifted, until all the surface is covered to a certain depth, according to the thickness of glaze desired. The articles are now put into an oven heated to 212 deg., and completely dried; after this they are put into a furnace and raised to a red heat, which melts the powder, and it forms the glazed surface. They are now removed to a closed chamber, when they are allowed to cool slowly, and are then annealed. The glazing powder for white enamel is composed of 130 parts of powdered flint glass, 20 of carbonate of soda, and 12 of borax. These substances are fused in a crucible and reduced to powder. Some glazes contain oxide of lead; they are dangerous to employ for culinary vessels, because, if acid is employed in cooking, it is liable to take up a portion of the lead, which is a poison. The enamel powder now described is perfectly safe, and can be applied to any articles of iron.

**FLEXIBLE FIRE-BARS.**—Mr. Newton, for a correspondent, has patented the use of chains, metal rope, or linked rods in place of the ordinary rigid fire-bars; the object being to allow them to work against each other in such a manner as to prevent the adhesion of clinkers to them.

**MANUFACTURE OF SALTPETRE.**—The improvements in the manufacture of saltpetre, which forms the subject of an invention recently patented by Mr. Newton, for a correspondent, is based upon the greater affinity possessed by nitric acid for potash than for soda, and the deliquescence of hydrate of soda, which allows of this hydrate being separated from nitrate of potash by simple washing. Potash is first treated with nearly saturated lime water, keeping it boiling until a small quantity is no longer acted upon by lime water; the compound is decanted into a vessel containing a solution of nitrate of soda, allowed to settle, and evaporated.

**TRANSMITTING ELECTRIC SIGNALS.**—Mr. D. E. Hughes, New York, has patented certain means for facilitating the transmission of a succession of signals, and also of ensuring the continuous effect of the recording apparatus employed. With a view to restore the needle or armature to its normal position immediately after it has been used, to close the circuit for the signalling current, he proposes to provide a short local circuit, which shall throw a reverse current into the receiving relay or induction coil, and thereby deflect the needle in an opposite direction. He so arranges this local circuit that when the current sent through the recording magnet has caused the attraction or repulsion of the armature of that magnet, the local circuit will be completed by the movement of the armature, and a battery in this circuit will then send a current into the receiving relay, and deflect the needle, and thus by a positive action break the circuit of the main or recording current.

**OXY-HYDROGEN LIGHT.**—An improvement in preparing materials employed in obtaining light when oxygen and hydrogen gases are used, has been patented by Mr. James Copcutt, of Kensington. The gypsum, or other material used, is first raised to a red heat, and then heated to 212 deg., and the heat in a crucible, in which a small quantity of sulphur is introduced; 5 lbs. of sulphur with the ton of gypsum will be sufficient to raise it to a red heat in a covered crucible or oven, and is kept at this heat for about 24 hours; it is afterwards allowed to cool, and cut into pieces of suitable form for use. The light is obtained by throwing an ignited jet of oxygen and hydrogen gases on to the gypsum.

**ROTARY PUMPS.**—Mr. John Richards, Moorgate-street, provisionally specified an invention, which consists of a hollow cylinder, to which is affixed a solid shaft working through a hollow shaft carrying a cam, or two or more wheels, affixed to a suitable frame, or the sides on the surface of the cylinder, are a series of plates or flaps of equal width, but varying in breadth according to the number covering the entire periphery. These plates are all hinged on one side to the face of the cylinder, and about their centre or their sides one or more slots are cut into the cylinder, equal to the width of each flap, through which passes a quadrant, one side of which is secured to the underside of each flap or valve. Rotating the cylinder the enclosed wheels, or cams, remain stationary, and one portion of each cam, in succession passes over the top surface of the other wheel or cam, thus causing the flaps to rise and fall in succession; two portions of the case enclosing the whole, and this case, or cylinder, containing the water to be forced, has two inlet and two exit pipes.

**STEAM-ENGINES.**—Messrs. Burnett, Deptford, have patented some improvements in the concentric motion of the piston-rod, as patented by Mr. Joseph Burnett, in 1838. The improvements consist in the employment of a solid annular piston-rod, working round a circular guide, instead of on a central axis as heretofore, also in placing the steam ways in the central part of the engine, and working the same by a single slide, which renders the two slide valves with their connecting gear formerly employed unnecessary.

**STEAM-BOILERS.**—Mr. J. Smethurst, Guide Bridge, has perfected an invention, which consists in constructing steam-boilers of one or more series of vessels placed in a line, or above each other, and connected to a steam dome. When the improvements are applied to boilers without internal flues, the vessels are placed in the flues surrounding the boiler. This appears to be a modification of Daum's rotator boiler, and the patent was not completed.

**BLASTING BY ELECTRICITY.**—A series of experiments has been commenced at Chatham, for the purpose of testing the advantages to be obtained in firing charges of gunpowder by magnetic electricity, the experiments being made at the instance of Sir Charles W. Pasley, who has taken much interest in the invention. The experiments were conducted by Mr. Abel, the chemist connected with the War Department, were made with a combination of magnets arranged by Prof. Wheatstone, the magnetic current being conveyed to the charges by means of a conducted wire, insulated in a coating of gutta serena. The charges in the first experiments were placed at a distance of about 500 yards from the magnetic battery, but, notwithstanding this distance, the current was unimpaired, and, by means of several branch wires, the whole of the charges were fired simultaneously. The experiments, which were witnessed by a number of the officers of the Royal Engineers, were attended with complete success. It is intended to repeat them on a larger scale.

**BRITISH HONDURAS.**—This country, it is proverbially known, produces mahogany and logwood, not only of the finest descriptions but in sufficient abundance to meet almost any demand. The temperature averages 84° in summer, and 72° in winter. It possesses many advantages for settlers, not the least of which is that it is free from hurricanes and droughts, which are so common in tropical countries, and is intersected by numerous navigable rivers. A limited joint-stock company has been formed for the purpose of importing into this country the products of this tropical clime, consisting of mahogany, logwood, sugar, tobacco, and cotton, the latter being of such luxuriant growth as to realise at a reduced cost, and to secure a basis for a solid emigration. The territory to be secured consists of nearly a million acres of fresh land, of a virgin soil, chiefly of rich loam, especially suitable to the successful cultivation of all tropical productions. The profits from the estate during the last nine years, after deducting for bad debts, amounted to 73,048s., being an average of about 8117s. per annum, which, it appears, might have been much more favourable had not operations been commenced before the limits of the territory. It is thought that the results of the ensuing season will be more than usually remunerative, from the fact that the productions could be realised at a reduced cost, and prices having an upward tendency. There is an ample amount of native labour to be secured, and the emigration is greatly on the increase. It is believed that, in the first instance, 70,000s. will be sufficient to purchase the estate, and to carry on the operations of the company.

## BANK OF AUSTRALASIA.

The half-yearly meeting of proprietors was held at their offices, Threadneedle-street, on Monday.

Mr. OLIVER FARRER in the chair.

Mr. MILLIKEN (the secretary) read the advertisement convening the meeting, and the directors' statement (which will be found embodied in the Chairman's address). The CHAIRMAN said, as gentlemen are doubtless aware, that meeting had not been convened for the purpose of receiving the usual statement of accounts, which was not presented at that period of the year, but to lay before the honourable proprietors a statement from the directors. In the first place, then, he would observe that the statement that day submitted afforded the directors great satisfaction. They were aware that at that time it was not their plan to submit any details, and that the meeting was chiefly held with the view of affording an opportunity of communicating any material change that might have taken place during the last half-year. Now, he was happy in being able to state that nothing of any great importance had occurred, and it was a matter of satisfaction that he had nothing to say. From their general information they learned that the progress of business in the colonies was going on very steadily and regular. To say that the colonies had not suffered at all in the general depression he should be deceiving the honourable proprietors, for to a certain extent they had suffered, and things were not now in that state of rapid progress in which they were previous to the commercial crisis. The business of the bank, however, maintained its generally sound and healthy character. From their returns for the first half of the first banking year, ending in April last, and up to that time, they would be pleased to hear that their profits had been more considerable than in the corresponding half of the previous year, and that no loss of any importance whatever had occurred; and if the profits of the current year should not be so great as those of former years the reason would doubtless be the allowing of interest on deposits, which had been introduced into the Australian colonies. They had watched the progress of that movement with much interest, and it was with satisfaction they now reported that in New South Wales they had discontinued the allowance of interest on current accounts, and it was hoped that, in Victoria the practice to that extent would also be abandoned. They had made every possible exertion they could to induce the other banks to join with them in doing away with this system, because they felt satisfied that nothing could be more vicious. Whatever might be said of permanent deposits, a more vicious system had never been propounded than that of paying interest upon current accounts—in fact, in this country the system had almost entirely exploded, where the money could be used from day to day. It was a system which had been very generally disapproved, and he hoped it would be discontinued, but he clearly saw that unless the banks unite in effecting this end that bank could not do it alone. He hoped he should not be misunderstood. They wanted no more profit from the colonies than that which they were fairly entitled to—only fair and legitimate profits, which every banking establishment ought to receive for the accommodation it afforded to the public. An arrangement had been made by the six banks with the Victoria Government for the disposal of bonds, which had been raised for the purpose of promoting railways and other improvements in Victoria; this they were told would be a profitable arrangement. They had no reason to doubt this, but until it was brought into operation it was very difficult to say what amount of profit would accrue therefrom; but it would be utterly impossible and impracticable not to join in promoting the fair objects of the Government, which were useful to the colonies, and certainly entitled to the support of all the colonial banks. The commerce of the colonies was progressing, railways were rapidly increasing, telegraphs were being constructed, and everything was going on well. If the markets, which were so overstocked, became freed from that overplus of produce, commercial men would soon derive as large profits as they had done in former times. He had much pleasure in testifying to the diligence and individual zeal of their officers both at home and abroad, and concluded by stating that he should be glad to answer any questions that might be put.

Some discussion ensued, and the CHAIRMAN, in answer to questions, said, that their meeting in March would be the fair and legitimate time for settling the dividend, and it was their forbearance in not greedily pocketing all their great prosperity that had enabled them to keep up their dividends at a higher rate.

After some remarks from Mr. FARRER with regard to the increase of the directors' salaries, the CHAIRMAN observed that such increase would be deemed a compliment paid to them (the directors).

Some discussion ensued, upon which Mr. McDONALD proposed that the directors' salaries be increased to 3000s. instead of 2800s., as heretofore.

Mr. FARRER said, that the resolution which was put and carried with only two dissentients, it was then resolved—"That the 11th clause of the Deed of Settlement be reported, and that instead thereof the yearly general meeting shall henceforth be held on a Monday in March instead of June."

A vote of thanks to the Chairman, directors, and other officers of the corporation having been unanimously accorded, the proceedings terminated.

**RAILWAY TRAFFIC.**—The Traffic Returns of Railways in the United Kingdom for the week ending Dec. 11 amounted to 425,920s., and for the corresponding week of 1857 to 391,810s., showing an increase of 34,110s. The gross receipts of the eight railways having their terminal in the metropolis amounted for the week ending as above to 172,809s., and for corresponding week of 1857 to 170,325s., showing an increase of 2484s. The increase on the Eastern Counties amounted to 556s.; on the Great Western to 1267s.; on the London and North-Western to 3068s.; on the London and Blackwall to 407s.; on the London and South-Eastern to 1677s.; on the London and South-Western to 657s.; and on the South-Eastern to 437s. Taken from this must be deducted 2497s. the decrease on the Great Northern; leaving the increase as above, 2484s.

The receipts on the other lines in the United Kingdom amounted to 253,111s., and for the corresponding week of last year to 221,457s., showing an increase of 31,654s. In the receipts of those lines, which, added to the increase on the metropolis lines, leaves the total increase 34,110s., as compared with the corresponding week of 1857.

**POST OFFICE DIRECTORY.**—Messrs. Kelly and Co. have again issued their useful compendium for the year 1859. We have had occasion to notice it for so many years, that it appears scarcely any comment is necessary but that it fully bears out its prestige and well-deserved reputation. The getting up is equal in style to that of former years, for hitherto on this head no improvement was required. Without needlessly recurring to a case which is fresh in the memory of all, it is only an act of justice to state that the Messrs. Kelly have placed a distinguished mark among those gentlemen who are members of the Stock Exchange, so that they can easily be distinguished from other brokers. A reference, therefore, to such a work as the Directory will enable persons wishing to invest money to ascertain those who are bona fide stock-brokers, and, consequently, if only common caution is used there need not be a repetition of the late serious frauds. In addition to this, we obtain a knowledge of those chemists who are members of the Pharmaceutical College, as well as of the surgeons of the Royal College; the names of the colleges from which the physicians have obtained their degrees are attached, so far as they could be ascertained, and there is no question but that in the ensuing year this trifling defect will be perfectly remedied. Mr. W. T. the eminent architect, on Nov. 27 was elected a member of the Metropolitan Board of Works in place of Mr. Chalmers, resigned; and on Nov. 26 Mr. G. E. Gray was appointed accountant to the Bank of England, in lieu of Mr. W. Smees, deceased: these alterations are given so that it can be seen that information as to changes are up to the most recent date. The present volume contains 2570 pages; the trades are all classified; and, in addition to its great utility to those who are dwellers in London, it must be of no little importance to those who have transactions in the Great Metropolis, as by a glance at the Directory they can ascertain the addresses of all those persons to whom they may require to do business. It is indispensable to all public offices, and no office, hotel, or business presuming to accord information should be without this carefully-compiled volume of London and its inhabitants.

**THE INVENTORS' ALMANAC.**—A compendious almanac under this title has been prepared by Mr. M. Henry, patent agent and mechanical draughtsman. It comprises a chronological table of the greatest inventions which have been made public during the past 200 years, and the calendar indicates the birthday of the various luminaries who have, by their discoveries in science, graced the age in which they lived. A very appropriate allegorical design, bringing the names of such men as Nasmyth, Cort, Smeaton, Arkwright, Davy, Wheatstone, Woodcroft, and others, prominently forward in connection with the branches of science in which they have distinguished themselves. Altogether, the almanac is worthy of a place in the counting-house or workshop of every inventor, and it will, doubtless, act as an encouragement to those in the position whence so many of our greatest inventors have risen.

**LETT'S DIARIES.**—These well-known diaries are again before the public. The form of diary before us (No. 11) is a most useful size for the desk or writing table, but as the forms but one of an extensive series, varying in size from a book for the waistcoat pocket to a folio, the tastes of all can be catered for. The appendices to this year's volumes contain a few useful observations, fully demonstrating the advantages to shareholders in joint-stock companies of limited over unlimited liability.

**BLACKWOOD'S SHILLING SCRIBBLING DIARY** is a valuable appendage to every counting-house. The diary contains a week at an opening, and is ruled with faint lines and cash columns, altogether forming an excellent substitute for more costly works.

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In 3000 shares of £1 per share. Deposit, 5s. per share, 15s. to be paid on allotment.

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ABRIDGED PROSPECTUS.

This mine is most favourably situated, at the junction of the granite and the kyllas intervening between the two mining districts of Tavistock and Ashburton. Leases have been obtained for 21 years, at a royalty of 1-15th.

Assays of the ores at surface have been made by Messrs. Johnson and Sons, of Basinghall-street, who certify that they contain 75 per cent. of tin, and about 15 per cent. of copper. Mr. Nicholas Ennor, and several other engineers, have inspected the mine, and report most favourably of its prospects. A further outlay of about £2000 in erecting machinery for crushing and dressing the ore will enable the proprietors to send into the market at least 25 tons of tin per month, which, after allowing a wide margin for working expenses, would leave nearly £10,000 per annum available for a dividend.

Prospectuses, and forms of application for the remaining shares, can be obtained at the offices of the company.

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Shares in the above company to the extent of 10,800 have been taken up by the directors and amongst their friends and connections, without advertisement. The remaining 1200 shares are now offered to the public at par. The company was established last year, for the purpose of purchasing and working a group of mines—viz., the Latchley Consols, South Maria, Tamar Maria, and Tamar River sets—the four forming the western boundary of the Devon Great Consols Mine, the lodes of which are laid down by competent authorities as passing through this property. During the progress of the working at Latchley, the large influx of water in the 60 ft. level rendered the aid of a powerful steam-engine necessary; one of 150 horse power was purchased, erected, and is in full work. At the above-named 60 ft. level two lodes of fine copper ore are now being opened upon, which have been traced from the shallow levels, and found to increase in size as they descend. In the South Wheel Maria a good lode has been discovered at 40 fms., which will soon be reached at a greater depth.

The company are in possession of most satisfactory reports of surveys, &c., copies of which may be had, with prospectus and forms of application for shares, at the office of the company, or from THOMAS SMITH, Esq., stock broker, 1, Cophthall Chambers, Bank, and Stock Exchange.

CHARLES PEARSON, Sec.



**CORNISH CRUCIBLES.**—JOHN JULEFF, CORNISH CRUCIBLE MAKER, FORT-STREET, REDRUTH, CORNWALL (late No. 5, Butler's-row). JEWELLERS, SILVERSMITHS, METALLURGISTS, AND ASSAYERS' CRUCIBLES OF ALL SIZES. BLACK LEAD POTS, COVERS, MUFFLES, CUPELS, &c., OF EVERY DESCRIPTION, AND MADE TO ORDER.

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**NEW PATENT ACT, 1852.**—MR. CAMPIN, having advocated Patent Law Reform before the Government and Legislature, and in the pages of the *Mining Journal*, &c., is now READY TO ADVISE AND ASSIST INVENTORS IN OBTAINING PATENTS, &c., UNDER THE NEW ACT. The Circular of Information, gratis, on application to the Patent Office and Designs Registry, 156, Strand.

Will be published on January 1, price 6d. per copy, or 6s. annually.—No. III of **THE MINING REVIEW, AND MONTHLY COMMERCIAL RECORD.** The chief object of this publication will be to furnish shareholders, capitalists, and the public with reliable information relating to Mining, Railway, and other Commercial securities, together with statistics and general observations of utility to investors. No. 2 will contain:—List of Dividends Paid by Cornish and Devon Mines during the past 12 years. Weekly Review of Business Transacted in Cornwall during the month. Daily Record of the Share Transactions in the best Dividend and Progressive Mines. Leading Articles on Cornish and Devon Mining Enterprise and the Cost-book System. Compendium, giving a detailed description of the Basset, South Fines, Old Tolgus United, South Butler and West Penwith, Basset and Basset United, West Grenville Basset, and North Downs Mines. Monthly Commercial Record. Prices of Railway Stock. Sales of Copper and other ores, with a mass of valuable data and useful information. Published at the offices, 4, Austerlitz, London, and to be had of all newsvendors.

**INVESTMENTS IN BRITISH MINES.** Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of **BRITISH MINES CONSIDERED AS AN INVESTMENT.** Recently published, by J. H. MURCHISON, F.G.S., F.S.S.

Mr. Murchison also publishes a **QUARTERLY REVIEW OF BRITISH MINING**, giving, at the same time, the Position and Prospects of the Mines at the end of each quarter, the Dividends Paid, &c.; price 1s. Reliable information and advice will at any time be given by Mr. Murchison, either personally or by letter, at his offices, No. 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

**OPINIONS OF THE PRESS.** Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments. —*Mining Journal*. The book will be found extremely valuable. —*Observer*. A valuable little book. —*Globe*. A valuable guide to investors. —*Herapath*. Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines. —*Morning Herald*. Of special interest to persons having capital employed, or who may be desirous of investing in mines. —*Morning Chronicle*. Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison. —*Leeds Times*. As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats. —*Derby Telegraph*. To those who wish to invest capital in British Mines, this work is of the first importance. —*Wetsham*. This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide. —*Plymouth Journal*. Persons desirous to invest their capital in mining speculations, will find this work a very useful guide. —*Warwick Advertiser*. It is full of carefully compiled and reliable information relative to all the known mine in the United Kingdom. —*Sheffield Free Press*. Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work. —*Monmouth Beacon*. Every person connected, or who thinks of connecting himself, with mining speculations should possess himself of this book. —*North Wales Chronicle*. A very valuable book. —*Cornwall Gazette*. All who have invested, or intend to invest, in mines should peruse this able work. We believe a more useful publication, or one more to be depended on, cannot be found. —*Plymouth Herald*. With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital. —*Forth Herald*. Mr. Murchison will be a safe and trustworthy guide, so far as British Mines are concerned. —*Bath Express*. In deserving the attention of every one who seeks profitable investment of his capital. —*Brighton Examiner*. This is really a practical work for the capitalist. —*Stockport Advertiser*. To capitalists the work will prove very serviceable. —*Birmingham Mercury*. All who have invested, or intend to invest, in mines, would do well to consult this very useful work. —*Leicestershire Express*.

## THE MINING JOURNAL.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the several Causes of CARPENTER v. BELL AND OTHERS. SAME v. CREMER AND OTHERS. IN RE CHOLLACOTT CONSOLS MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to two several ORDERS, or DECREES, made in the above-mentioned Causes, and bearing date respectively the 12th day of August last, a PUBLIC AUCTION will be HOLDEN at the Registrar's Office, Truro, on WEDNESDAY, the 22nd day of December inst., at Twelve o'clock at noon, for SELLING the following SHARES, viz.:—  
240 (600ths) of the defendant Andrew Bell.  
300 (600ths) of the defendant S. Sturge.  
(As assignees of the estate and effects of Thomas Beesley, an insolvent).  
10 (600ths) of the defendant Charles Bradlough.  
5 (600ths) of the defendant Robert Daly.  
100 (600ths) of the defendant James Lane.  
359 (600ths) of the defendant Isaac Whitmore.  
470 (600ths) of the defendant Henry Cremer.  
5 (600ths) of the defendant Charles O'Reilly.  
10 (600ths) of the defendant Alfred Stockwell; and  
55 (600ths) of the defendant James Ensor.

Respectively of and in the said MINE, or as many of the said several shares of the said several defendants as may be necessary to satisfy the said several Orders or Decrees. For further information, application may be made to Mr. CHILCOTT, plaintiff's solicitor, Truro.—Dated Registrar's Office, Truro, December 4, 1858.

## In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the Cause of PAINTER v. DOSSER AND OTHERS. IN RE MILL POOL MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to a DECREE made in the above-mentioned Cause, and dated the 30th day of August last, a PUBLIC AUCTION will be HOLDEN at the Registrar's Office, Truro, on THURSDAY, the 30th day of December inst., at Twelve o'clock at noon, for SELLING—  
4 (1024th) SHARES of the defendant M. Batt; and  
3 (1024th) SHARES of the defendant James Laing.  
Respectively of and in the said MINE.  
For further information, application may be made to Messrs. ROSCORLA AND DAVIES, plaintiff's solicitors, Penzance; or to Mr. STOKES, solicitor, Truro. Dated Registrar's Office, Truro, December 14, 1858.

## In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the Cause of WATSON v. CHARLES AND OTHERS. IN RE WHEAL ARTHUR MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to a DECREE made in the above-mentioned Cause, and dated the 16th day of October last, a PUBLIC AUCTION will be HOLDEN at the Registrar's Office, Truro, on THURSDAY, the 30th day of December inst., at Twelve o'clock at noon, for SELLING—  
10 (1228th) SHARES of the defendant James Charles.  
1 (1228th) SHARE of the defendant William Johns; and  
4 (1228th) SHARES of the defendant Charles Guerrero Manini.  
Respectively of and in the said MINE.  
For further information, application may be made to Messrs. HORVE AND BOTLE, plaintiff's solicitors, 3, St. Dunstons, Cornhill, London; or to Mr. STOKES, solicitor, Truro. Dated Registrar's Office, Truro, December 14, 1858.

## In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the several Causes of PAINTER v. TAGART AND OTHERS. SAME v. HESLOP AND OTHERS. IN RE WEST WHEAL JANE MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to two several DECREES made in the above-mentioned Causes, and bearing date respectively the 3d and 5th days of November last, a PUBLIC AUCTION will be HOLDEN at the Registrar's Office, Truro, on THURSDAY, the 30th day of December inst., at Twelve o'clock at noon, for SELLING—  
30 (10,000th) SHARES of the defendant Thomas Tagart.  
30 (10,000th) SHARES of the defendant John Batters.  
50 (10,000th) SHARES of the defendant T. Heslop.  
20 (10,000th) SHARES of the defendant J. E. Palmer; and  
5 (10,000th) SHARES of the defendant G. Wiseman.  
Respectively of and in the said MINE.  
For further information, application may be made to Messrs. ROSCORLA AND DAVIES, plaintiff's solicitors, Penzance; or to Mr. STOKES, solicitor, Truro. Dated Registrar's Office, Truro, December 14, 1858.

## THE KAPUNDA COPPER MINING COMPANY, AUSTRALIA.

ONE THOUSAND THREE HUNDRED AND TWENTY EIGHT SHARES (4½ PAID) IN THIS IMPORTANT UNDERTAKING.

**MESSRS. GADSDEN, WINTERFLOOD, AND ELLIS** have received instructions to SELL, BY AUCTION, at the Mart, on Tuesday, the 21st December, 1858, at Twelve o'clock, in Lots, by order of the administrator of a deceased shareholder, the above valuable SHARES.—Particulars may be obtained at the Mart; and at Messrs. GADSDEN, WINTERFLOOD, and ELLIS's offices, 18, Old Broad-street, City.

## COBRE, IN THE ISLAND OF CUBA.

**FOR SALE, THE COPPER ORE MINES, MACHINERY, LAND, HOUSES, STORES, AND PROPERTY OF ALL KINDS, OF THE ROYAL SANTIAGO MINING COMPANY,** situate at Cobre, in the Island of Cuba. The directors beg to invite offers for the purchase of these mines and the property in and upon them, of which immediate possession will be given. The circumstances under which the working of the mines was suspended are well known to have arisen from the falling in from top to bottom of the engine-shaft, in May last, carrying down with the rubbish and timber part of the steam machinery, &c., whereby the mine filled with water, and the works were stopped. And the directors being without funds to purchase new machinery and carry on the working of the mines, now offer for sale the entire property, to enable them to close the affairs of the company. These mines are situate close to those worked by the Cobre Company, and about 1000 tons of ore raised from the mines now offered, and which have been sold this year in Swansea, is of a richer quality than any other Cobre ore for many years past. The mine from which the ore has been extracted had only been recently opened, and at the time of the accident was fast approaching to a profitable state of working. The precipitate works have always been very profitable. An opportunity is now afforded for a capitalist, by the formation of a company, to resume and carry on the working of the mines. An inventory of the entire property lies at the office for inspection, and every information will be given by the secretary. Applications will be received at the office (as under) to the 21st day of Dec. next. 35, Broad-street-buildings, London, November 29, 1858.

## NEW ZEALAND.

**FOR SALE, BY PRIVATE CONTRACT** THE ISLAND OF KAWAU. Affording an opportunity to the monied speculator rarely met with. KAWAU, which contains about 5000 acres, is of freehold tenure, and situated on the east coast of the Northern Island of New Zealand. It is distant some 30 miles to the northward of Auckland (the capital) and two miles from the mainland, and forms one of the principal landing points for vessels entering the Hauraki Gulf, or Frith of the Thames. The strait between it and the main land affords safe anchorage and favourable navigation for boats and small vessels, and the extensive natural harbour of Bon Accord, which runs about two miles into the centre of the island, is of sufficient depth and safety to shelter a considerable fleet of vessels. The island contains copper, and mining was formerly carried on to a considerable extent. There are numerous bays and inlets in the island, surrounded with luxuriant vegetation, supporting a large number of wild and tame cattle. Further particulars may be had, and offers in writing will be received, at the offices of the North British Australasian Company (Limited), to whom the property belongs. A royalty will be reserved on all minerals which may be found on the property. By order, DAVID BUDGE, Sec. 27, New Broad-street, London, E.C., September 16, 1858.

**TO BE SOLD, A VERY VALUABLE MANGANESE AND COPPER MINE.** Also, FOUR HUNDRED TONS OF MANGANESE of good quality, ready for market.—Apply to the proprietor, Captain THOMAS TONKIN, Glandore Leap, county Cork, Ireland.

**VALUABLE SILVER-LEAD MINES, COUNTY WICKLOW, IRELAND.** **TO BE SOLD, OR LEASED, THE VALUABLE MINES AND ROYALTES OF CLONAKKEN,** containing 427 acres, and rising 1075 feet over the vale of Glenmalur. The sett contains five lodes, traversing the junction of the slate and granite formations, and lies in the centre of a great mineral district, in which there are many most productive mines, at present yielding immense returns, and immediately adjoining the sett. Considerable progress has already been made in developing this mine, an adit level having been driven 32 fathoms, to intersect the main lode, and a few fathoms driven on its course (which is here 16 feet wide) through shoots of ore and highly mineralised ground. Whether this property be viewed in reference to its geological position, the number of lodes, the facilities for development, or the mineral character of the district, it may, with confidence be affirmed that there are few mining properties which promise so large returns on so small an outlay, as the most expensive and unproductive parts of the work have been already done. For particulars and prospectus apply to Wm. SURR, Esq., 3, Gardiner's-place, Dublin.

**VALUABLE MINING SETTS TO BE LET,** known by the name of PERRHWRAYAD and MELYNRAYAD, in the parish of Cilceym, in the county of Carmarthen, just five miles distant from the Llandovery station on the Towy Vale Railway. The great Tany-y-mwyn lead lode runs nearly a mile through the said sett. It is evident that this place has been very productive, and a great quantity of lead has been raised there and smelted on the spot in former times, of which there is now a great deal on the surface, of potter's lead, silver-lead, and red lead. A cross-cut has been driven within a few fathoms of the principal lode, but it appears this was abandoned for want of capital by the company who took the sett for twelve months, now expired. Also, TO BE LET, on the same estate, an EXTENSIVE SETT, adjoining the great Welsh lead mine, in the parish of Llangolock, on the Towy Vale Railway, through which all the lodes of the said mine pass. For all particulars, and to view the said sets, apply to Capt. LLOYD, Glasnevin, near Llangolock, Carmarthenshire.

**IRON MINE FOR SALE.**—FOR SALE, A VALUABLE IRON MINE, situate on the north coast of Cornwall, near Boscawen. It is estimated that upwards of 100,000 tons of iron ore have been discovered, which may be taken away at a low cost. The discovery of another deposit has just been made, parallel to the first; its extent is not yet known. Assays of the ore have been made, and the average is 64 per cent. of metallic iron.—For particulars as to price, apply to HENRY WILLS, 17½, George-street, Plymouth.

**MADRAS RAILWAY COMPANY.—THIRD EXTENSION** SHARES (FIVE POUNDS PER SHARE PAID).—NOTICE IS HEREBY GIVEN, that, in pursuance of a resolution of the Board of Directors, the PROPRIETORS of THIRD EXTENSION SHARES (£5 per share paid) in the Madras Railway Company ARE REQUESTED TO PAY A CALL OF FIVE POUNDS PER SHARE on each of their respective shares, on or before the 28th day of December inst., at the Union Bank of London, 2, Prince-street, in the City of London.

Notice is hereby further given, that interest at the rate of 2½ per cent. per annum will be charged upon all calls remaining unpaid after the day above mentioned; that the proprietors whose calls are not paid on or before the day named will further incur a loss of interest on the amount called upon each share for the period intervening between the 28th day of December aforesaid and the date at which the company are entitled, under the contract, to make the next payment into the Treasury at the East India House on account of the capital, and that if default be made in the payment of this call, the shares in respect of which default is made will become liable to forfeiture under the company's Deed of Settlement. By order of the Board, JAMES WALKER, Managing Director. 83, New Broad-street, London, E.C., December 3, 1858.

**MADRAS RAILWAY COMPANY.—NOTICE IS HEREBY** GIVEN, that the TRANSFER BOOKS of the company WILL BE CLOSED from the 23d inst. to the 11th day of January next, both days inclusive, for the purpose of making up the interest accounts to the 31st inst. The interest warrants will be forwarded to the shareholders whose names are registered at that date in the books of the company. Deeds of transfers are not received at the offices of the company while the books are closed. By order of the Board, JAMES WALKER, Managing Director. 83, New Broad-street, London, E.C., December 10, 1858.

**FIVE PER CENT. DEBENTURES.—RECIFE AND SAO FRANCISCO PERAMBUCO RAILWAY COMPANY (LIMITED).** THE DIRECTORS of this company are PREPARED TO RECEIVE TENDERS for LOANS to a limited amount on DEBENTURE BONDS, in sums of £100 and upwards, for periods of not less than three nor more than seven years, at 5 per cent. per annum. The interest, which will be the first charge on the entire revenue of the company, will be paid half-yearly, at Messrs. Heywood, Kennards, and Co's, Lombard-street, London, on presentation of the coupons. Proposals to be addressed to the secretary, at the offices of the company, Gresham-house, Old Broad-street, London, E.C. By order, 199, Gresham-house, Old Broad-street, London, E.C. W. H. BELLAMY, Sec.

**NATIONAL PROVINCIAL BANK OF ENGLAND.**—THE DIRECTORS of the National Provincial Bank of England HEREBY GIVE NOTICE, that a HALF-YEARLY DIVIDEND, at the rate of 8 per cent. per annum, WILL BE PAYABLE on the company's stock on and after the 14th January next, when the dividend warrants will be obtained at the company's office, 112, Bishopsgate-street, or at the different branches. The transfer books will be closed on and after Saturday, the 18th inst., until the dividend becomes payable. By order of the Court of Directors, DAN. ROBERTSON, Agent and Manager. 112, Bishopsgate-street, London, December 14, 1858.

**THE GREAT SHIP COMPANY (LIMITED).** FOR PURCHASING AND EQUIPPING THE "GREAT EASTERN." Liability strictly limited to the amount of subscription. Capital £300,000, in 30,000 shares of £1 each. Deposit, 2s. 6d. per share on application for ten shares and upwards. Less than ten shares must be fully paid up on application. Detailed prospectuses, full particulars, and forms of applications for shares, may be obtained at the offices of the company, as under. JOHN HENRY YATES, Sec. Temporary offices, 79, Lombard-street, London, E.C., November, 1858.

**THE GREAT SHIP COMPANY (LIMITED).**—NOTICE IS HEREBY GIVEN, that NO APPLICATION FOR SHARES in this company WILL BE RECEIVED AFTER TUESDAY, the 28th inst. By order of the Board of Directors, JOHN HENRY YATES, Sec. Temporary Offices, 79, Lombard-street, Dec. 16, 1858.

**SURREY GARDENS COMPANY (LIMITED).**—Capital £20,000, in 20,000 shares of £1 each. Deposit, 2s. 6d. per share. The objects for which this company is formed are the purchase of the lease, fittings, fixtures, and appurtenances of the property known as the Royal Surrey Gardens, heretofore held and conducted by the Royal Surrey Gardens Company (Limited), in possession of the present proprietor, under a conditional agreement for sale from the official liquidator and mortgages of the company. Prospectuses, with names of directors and forms of applications for shares, can be obtained of ALBERT DIXON, Esq., No. 3, King's Bench-walk, Temple, E.C.; at the office, No. 19, Penton-place, Walworth, S., adjoining the Gardens; or of Mr. BROOKS, No. 112, Cheap-side, E.C.

**ROSSIE AND CANADA LEAD COMPANY (LIMITED).**—NOTICE IS HEREBY GIVEN, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the company will be HELD at the offices of the company, No. 1, Pinner's-court, Old Broad-street, in the City of London, on MONDAY, the 20th inst., at Two o'clock p.m., to take into consideration the present position of the company's affairs, and to adopt such measures as may be deemed necessary for the best interests of the shareholders. By order of the Board, B. R. PEMBERTON, Sec. 1, Pinner's-court, Old Broad-street, London, December 11, 1858.

**DALE MINING COMPANY (LIMITED).**—NOTICE IS HEREBY GIVEN, that the ORDINARY MEETING of the shareholders in this company will be HELD at the London Tavern, Bishopsgate-street, in the City of London, on WEDNESDAY, the 29th inst., at One o'clock. By order of the Board, J. DICKINSON BRUNTON, Sec. 10, Regent-street, December 13, 1858.

**EAST WHEAL RUSSELL.**—The Committee of Management of this mine, having had its attention called to the following statement of Mr. JAMES CROFTS, in the *Mining Journal* of the 11th December last—viz., "Its (the East Wheal Russell's) real value depending on the cutting of the lode rich in the 88 fm. level, it having gone down from the 66 fm. level, but the result has been the getting through the lode in the 86 fm. level and finding it to contain, with some exceptions, not saving work," hereby declare that this statement is false and without foundation, and calculated to deceive the shareholders, and was well known to be untrue by the said James Crofts before and at the time he published the same, he having been informed and well knowing there was no foundation for such a statement.

Resolved.—That the above be published in the *Daily News and Mining Journal*, and that the secretary forward a copy of this resolution to each shareholder, with a request that the committee be informed by any shareholder whether he has been induced to part with shares in consequence of the statement of Mr. Crofts, by 8 ft., with two committees will be prepared to recommend the shareholders to take proceedings, the committee being determined to recommend this course whenever any unfounded statement is made. By order of the Committee, J. H. MURCHISON, Sec. Dated December 14, 1858.

**LEAD FOR EXPORTATION.—PIG-LEAD (hard and soft) SOLD** AT LOW RATES. THE BEST PRICE GIVEN FOR LEAD ASHES, &c., AND OLD LEAD.—ROUSELL AND CO., Southwark Lead Works, Gravel-lane, London.

**MINING PORTABLE STEAM ENGINE, WITH WINDING AND PUMPING GEAR.**—FOR SALE, A FIRST CLASS PORTABLE STEAM ENGINE, fitted with 2 x 8 in. cylinders, link motion governors, feed pump, fly-wheel, &c., complete, as exhibited at the Cattle Show, Baker-street. Also, a WINDING MACHINE, fitted with break clutch and a pumping crank, pin, and connecting rod for a wooden rod to bob at top of mine.—For price and particulars, apply to T. CRESSWELL, Portable Mining Engine Maker, 92, Blackfriars-road, London, S., where the same may be seen at work.

**BOILERS.—ON SALE, ONE BOILER, 18 ft. by 5 ft. 6 in.; ONE 20 ft. by 7 ft.; and ONE 33 ft. by 7 ft. 4 in., with two fires through each.—ONE 35 ft. by 7 ft., with two fires joining into one.—ONE 28 ft. by 8 ft., with two fires joining into one, and diverging into two again.—ONE 18 ft. by 5 ft., with one fire through.—ONE 18 ft., and ONE 20 ft. by 3 ft. 3 in.; ONE 27 ft. by 5 ft. 6 in., and ONE 30 ft. by 5 ft. 3 in.; all with egg ends.—Also, ONE 12 ft. by 3 ft. 9 in., with elliptic ends. All in good working order, and at moderate low prices. NEW BOILERS MADE TO ORDER, at very reasonable rates.—Apply to FERNHOUGH and SONS, Dukinfield, near Manchester.**

**MOST IMPORTANT TO COLLIERY OWNERS AND COLLIERY MANAGERS.** HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS, beg to call attention to their IMPROVED SIGNAL BELLS, especially prepared to meet the requirements of the new Act for the Inspection of Coal Mines. It has met with the decided approval of many large colliery owners and managers. SIMPLE, EFFICIENT, AND CHEAP. Price 15s., 17s. 6d., and 20s. each. BYRAM'S PATENT ANEMOMETER, for testing the ventilation. Price £2 10s., £3 5s., and £4 4s. each. STEAM PRESSURE GAUGES, very strong and accurate, £2 and £3 12s. 6d. each. For further particulars apply to H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

**FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES,** FOR the use of IRONWORKS, COLLIERIES, RAILWAYS, WAREHOUSES, STORES, &c. The most ACCURATE MACHINES in use, and the cheapest. MACHINES of all sizes, from 1 cwt. to 30 tons, for RAILWAY WAGONS, CARTS, &c. For prices and all other information, apply to HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS. Patent Asphalted Roofing Felt, Boiler Felt, Galvanised Iron, Mining Stores, &c., in Stock.

**GUTTA PERCHA BANDS, TUBING, &c.**—Our BANDS, carefully MANUFACTURED from the VERY BEST GUTTA PERCHA only, are considerably CHEAPER, and, when fairly worked, are far more DURABLE than LEATHER. Can be had in lengths of 100 or 120 feet without a joint, are easily joined or repaired, and are, when worn out, re-purchased by us at about one-third of their original cost. In the event of a break down, a band of any size can be supplied within a few hours of receipt of order. The present prices are as under:—Bands ½ in. thick and upwards to ½ in. ... 2s. 2d. per lb. Bands above ½ in. thick ... 2s. 4d. per lb. Subject to a liberal discount for cash, varying according to quantity. TUBING and other articles equally low. All our patented manufactures are to be obtained wholesale from our own works; retail from any of our dealers. THE WEST HAM GUTTA PERCHA COMPANY. West-street, Smithfield, London, E.C.



**MORE STEAM, LESS FUEL, NO SMOKE.**  
S.S. "Tonnage," Victoria (London) Docks, Dec. 14, 1858.  
SIR,—Since I wrote to you on the 11th September, we have made fifteen voyages to and from Tonnage with your PATENT REGULATING AIR DOORS, and with the same satisfactory results in increase of steam (20 per cent.), saving of fuel (15 per cent.), and prevention of smoke. We have never (as we used to have) any flame in the funnel, and the ventilation of the stoking room is so good that the firemen work with comfort in the hottest weather. The doors are as perfect as when first fitted.  
I am, Sir, your obedient servant, FRANCIS REAY, Chief Engineer.  
To Mr. J. Lee Stevens, 1, Fish-street-hill, E.C.  
N.B.—The profit on 16 voyages, besides paying for the doors, exceeds £100.

**OVERLAND ROUTE.—WEEKLY COMMUNICATION BY STEAM TO INDIA, &c., VIA EGYPT.**  
The PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ADEN, CEYLON, MADRAS, CALCUTTA, THE STRAITS, CHINA, and MANILLA, by their steamers leaving Southampton on the 4th and 20th of every month; and for the MEDITERRANEAN, EGYPT, ADEN, and BOMBAY, by their packets leaving Southampton about the 11th and 27th of the month.  
For further particulars, apply at the company's offices, No. 122, Leadenhall-street; and at Oriental-place, Southampton.

**EMIGRATION TO SOUTH AUSTRALIA.**  
THE UNDERSIGNED, being the EMIGRATION AGENT APPOINTED by the GOVERNMENT OF SOUTH AUSTRALIA, the capital of which colony is Adelaide, and distinct in almost every respect from the colonies of New South Wales and Victoria, the principal towns of which are Sydney and Melbourne respectively, INVITES THE ATTENTION OF PERSONS ACCUSTOMED TO AGRICULTURAL AND PASTORAL PURSUITS, AND POSSESSORS OF A LIMITED CAPITAL, TO THE SOLID AND CERTAIN ADVANTAGES arising from a JUDICIOUS INVESTMENT of the same, under their personal management, in South Australia.

The UNDERSIGNED, who has resided in South Australia for nearly eighteen years, is PREPARED TO GIVE ADVICE AND INFORMATION (gratis, of course) to all PERSONS OF THE ABOVE DESCRIPTIONS who may feel disposed to consult him, with a view of emigrating to that colony. Personal applications, necessarily more satisfactory to both parties than written ones, to prevent disappointment, should be made between the 4th and 16th of each month, between the hours of Eleven A.M. and Four P.M., at the office of—  
GEO. F. DASHWOOD,  
8, Great Queen-street, Westminster, S.W. Emigration Agent for South Australia.

**STEAM TO AUSTRALIA UNDER SIXTY DAYS.**  
PASSAGE MONEY £14 AND UPWARDS.  
**BLACK BALL LINE OF BRITISH AND AUSTRALIAN EX-ROYAL MAIL PACKETS AND EAGLE LINE.**  
In conjunction with the celebrated auxiliary steam clippers GREAT BRITAIN and ROYAL CHARTER. Appointed to sail punctually from LIVERPOOL on the 5th and 15th of each month.

The above, in addition to being the only line with steamers out of Liverpool, is composed of the LARGEST, FINEST, and FASTEST MERCHANT SHIPS IN THE WORLD.  
Ship. Register. Tons. Captain. Date.  
LIGHTNING 2000 4500 CLARK 5th January.  
HOWENA 1100 3000 WILSON 15th January.  
MARCO POLO 1625 3500 JOHNSON 5th February.  
GREAT BRITAIN. OCEAN CHIEF.  
ROYAL CHARTER. INDIAN QUEEN.  
LIGHTNING. BRITISH TRIDENT.  
CHAMPION OF THE SEAS. GIPSEY BRIDE.  
DONALD MCKAY. GREAT TASMANIA.  
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The cabin accommodation is most superior, the saloons being elegantly furnished with every requisite to ensure comfort to passengers, and are supplied with beds, bedding, &c. Apply to GIBBS, BAIRD, and CO., merchants, or to JAMES BAIRD and CO., Liverpool; or to T. M. MACKAY and CO., 2, Moorgate-street, London, E.C.

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SAILING FROM LIVERPOOL TO MELBOURNE, on the 1st and 20th of every month, and from MELBOURNE TO LIVERPOOL on the 1st of every month. Passengers forwarded by steamers to ALL PARTS OF AUSTRALIA, TASMANIA, &c., at through rates.

To the consignments of Lorimer, Mackie, and Co., Melbourne.  
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PRINCE OF THE SEAS H. A. BROWN. SHALIMAR ..... J. R. BROWN.  
MERMAID ..... JAMES WHITE. ARABIAN ..... M. GANDY.  
BEECHWORTH ..... THOMAS FRANK. SIROCCO ..... F. FLOOD.  
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A THROUGH PASSAGE TO FITZROY RIVER AND MORETON BAY, BY THE MERSEY LINE OF PACKETS, SAILING FROM LIVERPOOL TO MELBOURNE, on the 25th of every month. The magnificent clipper, *Captain Cook*, 2500 tons burthen, is the packet of the 25th. She has been in Her Majesty's transport service the last two years, having been specially selected on account of her extraordinary speed, which justifies the expectation that she will make the passage out under 70 days. Her second cabin in poop is unequalled by any ship on the berth, and the chief cabin is elegantly furnished. Apply to EDMUND THOMPSON and CO., 20, Water-street, Liverpool; or to their agent, ANDREW MCKEAN, 26, Leadenhall-street, London, E.C.

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Advice and medicines sent to any address secure from observation, on receipt of a full detail of the case and the usual fee of £1 is. Post-office orders payable at the Holborn Office to Walter De Roos, M.D., 10, Berners-street, Oxford-street, London. Hours for personal consultation daily from Eleven till Four, Sundays excepted.

N.B. Should difficulty arise in procuring the above, enclose the amount per Post-office order, or otherwise, to 10, Berners-street, and they will be sent securely packed per return.

**HOLLOWAY'S OINTMENT AND PILLS A CERTAIN CURE FOR SCURVY, LEPROSY, AND ALL DISEASES OF THE SKIN.**—The heaviness, weariness, and dejection of spirits usually attendant on those who suffer from diseases of the skin are speedily removed by the use of Holloway's Ointment and Pills. Their efficacy in correcting the bad habits of the body, and in curing complaints of the class above-mentioned, stands unrivalled. The purifying properties of the pills, and the peculiar effect the ointment has on the skin, render them superior to any other remedy. These medicines possess an advantage ascribed to no other therapeutic agent; they can never do harm, for whatever the disease is, cooling the surface and purifying the blood must be beneficial.



## THE MINING SHARE LIST.

## DIVIDEND MINES.

Shares.	Mines.	Paid.	Nom.	Pr.	Business.	Dividends Per Share.	Last Paid.
3120	Alfred Consols (cop.), Phylack* [S.E.]	2 11 0	8 5/8	8 5/8	19 5 0	2 6 0	Oct. 1858
10000	Banbridge (cop.), Tavitock	0 12 6	8 1/2	8 1/2	0 8 5/8	0 7 1/2	May, 1858
4000	Bedford United (cop.), Tavitock	2 6 8	8 1/2	8 1/2	10 8 5/8	0 3 0	Dec. 1858
240	Boscon (tin), St. Just	20 10 0	8 1/2	8 1/2	22 0 0	1 0 0	Nov. 1858
200	Botalack (tin, copper), St. Just	91 8 0	205	205	428 5 0	2 10 0	Oct. 1858
4056	Calstock Consols (copper)	5 0 0	4 1/4	4 1/4	0 2 6	0 2 6	Dec. 1857
1000	Carn Brea (copper, tin), Illogan	15 0 0	6 1/2	6 1/2	243 10 0	2 0 0	Aug. 1858
200	Carn Brea (copper, tin), Illogan	33 0 0	37	37	5 0 0	2 0 0	Mar. 1858
2000	Colcombe (copper), Lamerton	5 0 0	12 1/2	12 1/2	2 5 0	0 8 0	Dec. 1857
12000	Coppar Mines of England	25 0 0	25	25	7 1/2	per cent.	Half-yrly.
200000	Ditto ditto (stock)	100 0 0	25	25	2 4 0	0 5 0	Nov. 1858
1055	Craddock Moor (copper), St. Cleer	8 0 0	20	20	0 10 0	0 10 0	Nov. 1858
867	Cwm Erddin (lead), Cardiganshire	7 10 0	14	14	145 0 0	5 0 0	Sept. 1858
128	Cwm Erddin (lead), Cardiganshire	60 0 0	300	300	0 7 6	0 2 6	Nov. 1858
4076	Devon and Cornwall (copper)	4 6 3	9	9	639 0 0	7 0 0	Nov. 1858
1024	Devon Gt. Con. (cop.), Tavistock* [S.E.]	1 0 0	460	455 460	492 10 0	5 0 0	Dec. 1858
355	Dolcath (copper, tin), Camborne	128 17 6	230	200	54 0 0	3 0 0	Dec. 1858
300	East Daren (lead), Cardiganshire	32 0 0	110	108 110	42 0 0	3 0 0	Dec. 1858
2048	East Falmouth (copper), Gwennap	2 0 0	3	3	0 7 6	0 2 6	Jan. 1858
128	East Foot (tin, copper), Pool, Illogan	2 5 0	178	178	305 0 0	2 10 0	Aug. 1858
4700	Exmouth (silver-lead), Christow	4 4 0	8	8	3 15 0	2 6 0	April, 1858
1400	Eyan Mining Co. (lead), Derbyshire	5 0 0	38	38	15 13 4	1 0 0	Aug. 1858
243	Garnier and St. Aubyn (cop.) [S.E.] 1100	0 10 0	135	130 135	17 0 0	3 0 0	Nov. 1858
6000	Great South Toluca [S.E.] Redruth	0 14 6	14	13 13 1/2	3 7 6	0 10 0	Dec. 1858
1024	Herdfoot (lead), near Liskeard	8 10 0	7 1/2	7 1/2	4 7 6	0 12 6	June, 1858
2560	Isle of Man, Limited (lead)	25 0 0	42	42	88 8 8	1 0 0	June, 1858
1000	Levan (copper, tin), St. Just	2 10 0	105	105	1070 0 0	5 0 0	Nov. 1858
400	Lisburne (lead), Cardiganshire, Wales	15 0 0	100	100	317 10 0	2 0 0	Dec. 1858
5000	Mendip Hills (lead), Somerset	3 15 0	134	134	1 13 6	0 6 0	May, 1858
1800	Minera Mining Co. (tin), Wrexham	25 0 0	110 1/2	110 1/2	35 12 6	2 10 0	Nov. 1858
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	13 1/2	13 1/2	13 13 4	0 5 7	July, 1858
470	Newtownards Mining Co. Co. Down	50 0 0	35	35	55 0 0	1 0 0	July, 1858
6000	N.W. Bassett (cop., tin), Illogan* [S.E.]	nil.	8 1/2	8 1/2	14 12 0	0 5 0	Aug. 1858
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	17	16 17	32 15 0	0 10 0	Oct. 1858
200	Phonix (copper, tin), Liskeard	100 0 0	425	400 410	294 10 0	25 0 0	Nov. 1858
1000	Polberro (tin), St. Agnes (Preferential)	15 0 0	5	5	18 11 9	1 0 3	July, 1857
1772	Ditto ditto (Old and ditto)	5 0 0	5	5	7 6 0	0 7 0	Sept. 1858
580	Providence (tin), Uny Lelant [S.E.]	20 13 2	64	62 64	0 16 0	0 3 0	July, 1858
2500	Rhosydol and Racheildale (lead)	11 0 0	12	12	0 10 0	0 1 0	Aug. 1858
15000	Ruadon Colliery Company, Limited	0 5 0	34	34	0 1 10 0	0 1 0	Aug. 1858
256	South Cardan (cop., tin), St. Cleer* [S.E.]	2 10 0	410	405 410	346 0 0	8 0 0	Nov. 1858
256	South Garmas	26 0 0	70	70	2 0 0	2 0 0	Nov. 1858
512	South Toluca (cop., tin), Redruth, Cornwall	8 0 0	80	75 80	79 10 0	2 0 0	Nov. 1858
496	South Toluca (copper), Illogan* [S.E.]	18 18 9	240	290 235	510 5 0	5 0 0	Nov. 1858
20000	St. Day United (tin and copper)	2 0 0	118 1/2	118 1/2	0 3 6	0 1 0	Feb. 1858
478	St. Ives Consols (tin), St. Ives	16 0 0	35	35 37 1/2	920 0 0	2 10 0	Nov. 1858
6000	Tincoff (tin), Pool, Illogan [S.E.]	2 0 0	40	38 39 1/2	3 6 0	0 2 0	Sept. 1858
20000	Valley of Towy (lead), Carmarthen [S.E.]	0 12 6	6	128 138	4 2 6	0 1 0	July, 1858
512	Wendron Consols (tin), Wendron	23 7 8	43	43	3 0 0	1 0 0	Sept. 1858
6000	West Bassett (copper), Illogan* [S.E.]	1 10 0	24 1/2	22 23	15 0 0	0 9 0	Nov. 1858
256	West Cardan (cop., tin), Liskeard [S.E.]	20 0 0	135	130 135	287 5 0	2 0 0	May, 1858
6400	West Fowey Consols (tin and copper)	7 0 0	6 1/2	6 1/2	0 2 6	0 2 6	Mar. 1858
400	West Wheal Seton (cop., tin), Camborne	35 10 0	300	290 295	146 0 0	7 0 0	Dec. 1858
240	Wheal Bal (tin), St. Just	15 0 0	18	18	3 0 0	0 10 0	Nov. 1858
512	Wheal Bassett (copper), Illogan* [S.E.]	5 9 6	215	210 215	507 10 0	6 0 0	Dec. 1858
256	Wheal Buller (cop., tin), Redruth [S.E.]	2 0 0	40	38 39 1/2	895 0 0	5 0 0	Nov. 1858
4096	Wheal Edwards (copper), Illogan	5 10 0	23 1/2	23 1/2	5 0 0	5 0 0	Nov. 1858
128	Wheal Friendship (copper), Devon	50 0 0	90	2285 10 0	10 0 0	10 0 0	Feb. 1858
448	Wh. Margaret (tin), Uny Lelant [S.E.]	19 15 0	62 1/2	61 62 1/2	93 10 0	3 10 0	Nov. 1858
1024	Wh. Mary Ann (tin), Menheniot [S.E.]	8 0 0	47 1/2	44 46 1/2	40 17 6	5 0 0	Dec. 1858
80	Wheal Owles, St. Aust., Cornwall	70 0 0	300	225 13 0	225 13 0	5 0 0	Aug. 1858
1040	Wh. Trevelyan (sil.-id.), Liskeard [S.E.]	1 10 0	28 1/2	25 1/2	34 10 0	1 0 0	Oct. 1857
4096	Wheal Wrey (lead), St. Ives	14 0 0	2 1/2	2 1/2	2 12 6	0 2 6	Dec. 1857
5000	Wicklow (copper), Wicklow	5 0 0	38 1/2	38 1/2	30 5 6	1 10 0	July, 1858

## MINES WITH DIVIDENDS IN ABEYANCE.

1624	Baleswidden (tin), St. Just	11 5 0	5	5	12 5 0	0 5 0	Jan. 1854
1200	Brightdale and Froggatt Grove, Derbyshire	3 0 0	3 1/2	3 1/2	3 0 0	0 6 0	April, 1856
100	Bryntall, Llanidloes, Montgomeryshire	3 0 0	11 1/2	10 1/2	13 0 0	0 5 0	July, 1858
1000	Bryntall, Llanidloes, Montgomeryshire	3 0 0	11 1/2	10 1/2	13 0 0	0 5 0	July, 1858
390	Budack Consols (tin), Ferran	2 6 0	7	6 1/2	0 10 0	0 10 0	Mar. 1857
6000	Rwch (silver-lead), Cardiganshire	3 6 0	1 1/2	1 1/2	0 2 6	0 2 6	Aug. 1856
2048	Carnyorth (tin), St. Just	4 15 0	4 1/2	4 1/2	0 15 0	0 3 0	June, 1857
256	Carnyorth (tin), St. Just	4 15 0	4 1/2	4 1/2	0 15 0	0 3 0	June, 1857
30000	Craen Moor, Limited (lead), Yorkshire	0 10 0	3	3	0 9 0	0 9 0	June, 1857
230	Derwent Mines (sil.-lead), Durham	300 0 0	160	160	122 0 0	10 0 0	June, 1857
672	Dun Dug (tin), Gullvalf	35 5 0	11	8 1/2	16 7 6	1 10 0	Mar. 1857
12000	Drake Wad (tin), Pool, Illogan [S.E.]	2 0 0	40	38 39 1/2	3 6 0	0 2 0	Sept. 1858
1024	East of Wheal Margaret (tin, copper)	2 17 6	2	1 1/2	0 5 0	0 5 0	Jan. 1854
4940	Foway Consols (copper), Tywardreath	4 0 0	2 1/2	2 1/2	41 4 3	0 6 0	Feb. 1857
4448	General Mining Co. for Ire. (cop., tin)	4 0 0	1 1/2	1 1/2	1 0 8	0 3 0	June, 1857
2000	Goginan (silver-lead), Cardiganshire	12 5 0	2 1/2	2 1/2	22 0 0	0 5 0	Sept. 1857
1024	Goginan (copper), St. Cleer	14 5 0	8 1/2	8 1/2	0 7 6	0 7 6	Dec. 1852
26666	Gt. Wh. Vor (tin, cop.), Helston [S.E.]	8 17 6	3 1/2	3 1/2	0 5 0	0 5 0	Oct. 1857
119	Great Work (tin), Gernoe	100 0 0	110	110	221 10 0	7 10 0	Feb. 1857
6000	Hingston Down Cons. (cop.), Calstock	3 15 0	3 1/2	3 1/2	2 16 0	0 2 6	Nov. 1856
200	Holyford (copper), near Tipton	11 0 0	100	100	4 2 6	0 5 0	June, 1857
20	Laxey Mining Company, Isle of Man	100 0 0	1000	1000	1420 0 0	50 0 0	June, 1857
5000	Lewis Mines (tin, copper), St. Erth	6 9 11	2 1/2	2 1/2	0 10 0	0 10 0	Dec. 1855
6000	Marke Valley (copper), Cardan	40 11 6	2 1/2	2 1/2	0 5 6	0 3 0	Sept. 1855
5000	Merrilyn (lead), Flint	3 2 6	3 1/2	3 1/2	1 11 0	0 2 6	June, 1853
5000	Nantes & Penrhyn, Llan. (2 1/2 sha.)	2 5 0	1 1/2	1 1/2	0 1 6	0 1 6	April, 1853
200	North Pool (copper, tin), Pool	40 18 0	5 1/2	5 1/2	324 0 0	2 0 0	Dec. 1853
700	North Roskar (copper), Camborne	13 0 0	22 1/2	21 22	750 0 0	4 0 0	Sept. 1853
152	Rosewarne United (cop., tin), Gwennap	15 0 0	3 1/2	2 1/2	32 10 0	1 10 0	June, 1857
12000	Scorthill Consols (tin), near Helston	0 6 0	168	158 168	3 10 0	0 2 6	July, 1857
124	South Crinins (cop., tin), St. Austell	19 0 0	285	285	60 0 0	30 0 0	June, 1855
794	Spearne Con. (tin), St. Just, Cornwall	3 15 0	2 1/2	2 1/2	8 6 0	0 2 6	Dec. 1853
200	Spearne Moor (copper), St. Just	27 8 1/2	15	15	4 5 0	0 10 0	June, 1856
970	St. Aubyn and Grylls (cop., tin), Breage	6 8 4	2 1/2	2 1/2	0 17 6	0 7 3	April, 1852
9600	Tamar Con. (sil.-id.), Beeralston [S.E.]	4 10 0	1	1 1/2	4 13 6	0 2 6	Feb. 1856
572	Trevelyan Consols (tin), St. Ives	11 10 0	9 1/2	9 1/2	1 15 0	0 1 0	Feb. 1854
124	Trevelyan (cop., tin), Gwennap, Cornwall	15 0 0	15	15	403 13 6	2 10 0	April, 1851
4996	Trevelyan (sil.-id.), Menheniot, Cornw.	2 18 0	1 1/2	1 1/2	1 12 0	0 3 0	April, 1857
100	Trumpet Consols (tin), near Helston	95 1 0	11	11	0 13 0	0 2 6	Dec. 1854
400	United Mines (copper), Gwennap	40 0 0	115	115	61 5 0	5 0 0	Dec. 1854
512	West Damsel (copper), Gwennap	12 17 0	115	115 120	22 0 0	2 0 0	July, 1857
1024	West Providence (tin), St. Erth	21 17 1/2	14 1/2	14 1/2	23 1 9	0 10 0	April, 1857
6140	Wheal Arthur (copper), Calstock	2 10 0	5 1/2	5 1/2	1 6 0	0 0 0	Oct. 1855
1024	Wheal Charlotte, Penrynshire	5 3 4	20	18 20	1 10 0	0 10 0	Sept. 1855
256	Wheal Clifford (copper), Gwennap	5 310	310	310	42 0 0	3 0 0	Oct. 1857
512	Wheal Jane (silver-lead), Kea	3 10 0	25	25	8 10 0	1 10 0	Oct. 1857
6000	Wheal Killy (tin), St. Agnes	4 10 0	3 1/2	3 1/2	0 6 0	0 3 0	Mar. 1857
1024	Wheal Lelant (tin), Uny Lelant [S.E.]	7 2 2	9	8 1/2	0 6 0	0 3 0	Sept. 1857
400	Wheal Lovell (tin), Wendron	33 9 0	3	3	31 0 0	1 0 0	Sept. 1856
100	Wheal Mary (tin), Lelant	36 3 0	230	230	248 5 10	5 0 0	Mar. 1858
240	Wheal Reeth (tin), Uny Lelant	39 10 0	22	20 22 1/2	40 10 0	3 0 0	Aug. 1852
198	Wheal Seton (tin, copper), Camborne	107 0 0	130	130	286 10 0	2 0 0	Oct. 1857
1024	Wheal Tremayne (tin, cop.), Gwennap	12 2 6	2 1/2	2 1/2	10 2 6	0 7 6	Jan. 1854

\* Dividends paid every two months. † Dividends paid every three months.

## FOREIGN MINES.

2464	Burra Burra (cop.), South Australia	5 0 0	142	139 x d	200 0 0	5 0 0	June, 1858
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	40	39 41	86 12 0	1 0 0	Jan. 1858
10000	Copio Mining Company, Chile [S.E.]	16 0 0	13	10 12	5 18 0	0 10 0	Mar. 1858
70000	English and Australian [S.E.]	5 0 0	1 1/2	1 1/2	0 10 0	0 2 6	Sept. 1858
25000	Gen. Mining Assoc., Nova Scotia [S.E.] 20	0 0 0	21	20 21	13 10 0	0 17 6	Jan. 1858
10000	Linares (id.), Pozo Ancho, Spain [S.E.] 3	0 0 0	8 1/2	8 1/2	5 15 0	0 5 0	July, 1858
10000	Lusitanian (of Portugal) [S.E.]	1 15 0	1 d	1 1/2	0 8 0	0 2 6	June, 1858
103815	Marquette and New Granada [S.E.]	1 0 0	1	1	1 0 0	0 1 6	July, 1858

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten & Quansungen Uni. (cop.), Norw.	16	10	0	3	3	4 5 0	0 15 0	Nov. 1853
85676	North British Australian [S.E.]	1	0	0	1	1	0 31 0	1 3 0	Feb. 1857
10000	North British Australian [S.E.]	1	0	0	1	1	0 31 0	1 3 0	Feb. 1857
7000	Royal Santiago (copper), Chile [S.E.]	16	15	0	11	11	23 0 0	1 5 0	July 1848
11000	St. John del Rey [S.L.], Brazil [S.E.]	15	0	0	11	11	25 7 6	1 0 0	June, 1857
43174	Unit. Mexican [S.L.], Mexico [S.E.]	28	0	0	14	14	16 6 0	4 0 0	Feb. 1853